

Fretboard THEORY



Complete Guitar Theory Including Scales, Chords,
Progressions, Modes, Song Application and More.

Discover the secrets to songs by:

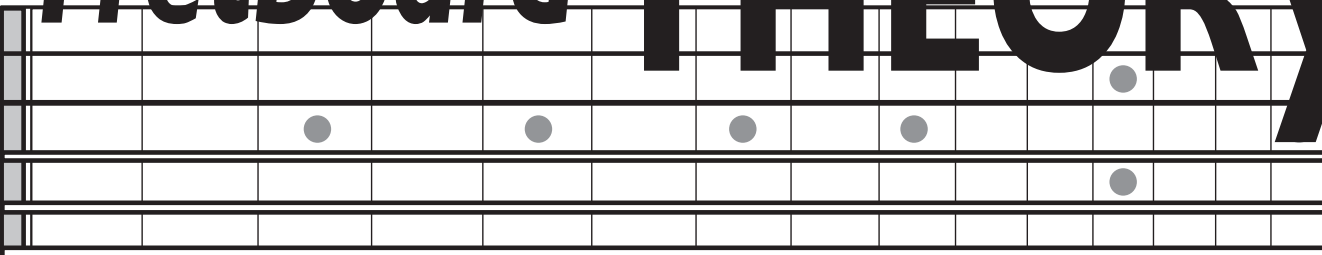
Led Zeppelin
Jimi Hendrix
Eric Clapton
The Beatles
Pink Floyd
Pearl Jam
Santana
Metallica
The Eagles
Lynyrd Skynyrd
The Grateful Dead
The Rolling Stones
Stevie Ray Vaughan
Dave Matthews Band
and 100s more!

-
- ***Pentatonic & major scale patterns!***
 - ***CAGED chords, inversions & arpeggios!***
 - ***Chord progressions & playing by numbers!***
 - ***Keys, music modes & applying scales!***
 - ***Hundreds of popular song references!***
 - ***Learn from a guitar player's perspective!***

Acoustic Guitar
Electric Guitar
Bass

Desi Serna

Fretboard **THEORY**

A stylized guitar fretboard diagram with 12 frets and 6 strings. The word 'Fretboard' is in italics and 'THEORY' is in bold. The diagram shows fret positions as dots on the strings. The dots are located at the 2nd fret of the 1st string, 3rd fret of the 2nd string, 4th fret of the 3rd string, 5th fret of the 4th string, 6th fret of the 5th string, and 7th fret of the 6th string.

by Desi Serna

<http://Guitar-Music-Theory.com>

Published by Desi Serna
<http://Guitar-Music-Theory.com>

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“For we are His creation—created in Christ Jesus for good works, which God prepared ahead of time so that we should walk in them.” -Ephesians 2:10 (Holman Christian Standard Bible)

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Fretboard Theory

Introduction

About This Book

Fretboard Theory is an excellent resource for musicians who are serious about jamming, understanding and creating guitar-driven music. The material contained in this book is based on a lifetime of professional experience teaching, publishing and performing in the world of guitar. I've compiled my expertise into one comprehensive book that will teach you the information that you'll find most beneficial to really understand and play guitar-oriented music. *Fretboard Theory* is a well-tested, proven, hands-on visual approach that will educate you about what you really want to know about jamming your favorite tunes and creating your own musical masterpieces.

What You'll Learn

Studying this book will teach you the musical elements that are most commonly used by popular guitarists and bassists. You'll learn how to build the most important of all chord forms, connect them to cover the whole fretboard, and break them up to create interesting shapes and voicings. You'll learn the two scales that dominate popular music and are used to compose and improvise melodies, riffs, solos, and bass lines. You'll learn how to chart chord progressions, play by numbers and recognize roots and keys. You'll finally uncover the simple truth about modes. You'll harmonize with intervals and add extensions to chords. And you'll learn all this as it relates specifically to the fretboard and popular songs which are listed throughout each chapter.

Other Benefits

But wait, there's more! The information contained in this book will not only help you develop your improvisational and compositional skills, but enhance your ability to transcribe recorded music, improve your communication with other musicians, and increase your capacity to understand other instrument parts. After *Fretboard Theory* teaches you how things fit, you'll not only pick up on things quicker but retain more of what you learn.

What's Missing?

Fretboard Theory won't cover reading standard musical notation or playing obscure and exotic music. Some formal vocabulary, traditional terms and outdated concepts have been purposely omitted in order to focus instead on more practical, useful information. The methods outlined on the following pages can work for anyone but a certain degree of knowledge is necessary before beginning your study.

What You Should Know

Fretboard Theory is intended for intermediate and advanced level guitar players. You should be familiar with open chords, barre chords, and playing songs.

Can Bass Players Benefit Too?

This book is full of relevant information for guitar and bass playing. Since bass strings E, A, D, and G are tuned exactly one octave lower than the respective guitar strings, and because the scale patterns and chord shapes on these four strings are the same on both instruments, it's unnecessary to illustrate bass and guitar separately. Bassists can play and learn from guitar parts just as they do bass lines. Likewise guitarists can benefit from learning bass parts.

Seven-String Guitars and Five-String Basses

There are no illustrations or explanations for seven-string guitars or five-string basses in this book. However, all the information still applies. If you play an instrument with an extra string, I recommend you ignore it initially with each lesson plan. You can work on incorporating it on your own once you've learned the material.

What about Left-Handers?

This book is written and illustrated from a right-hander's perspective. Unfortunately, left-handers will need to reverse the diagrams and explanations themselves.

How Fretboard Theory Works

Remember matching shapes in kindergarten? Now you can put that skill to good use. The combination of horizontal strings and vertical frets creates a grid out of the fretboard. Rather than emphasizing the notes of the scales and chords you play it's easier and absolutely necessary to visualize their patterns and shapes and how they connect. This is what separates the guitar from other instruments such as the piano (which has corrupted the teaching of guitar for too long). Material in this book is presented through a guitar player's perspective and by visualizing everything on the fretboard.

What You'll Need to Do

Each lesson is presented using illustrations, explanations, exercises and lots of song references. You'll need to practice and memorize scale patterns, chord shapes and exercises along with *read all the text*. You'll be instructed to learn independently some of the songs specified in each lesson.

Learning Songs

Learning and memorizing a chord shape or scale pattern is just the beginning. You *absolutely must* learn songs that demonstrate how to put something to good use. Songs are the glue that make everything you learn about music stick. This book makes good use of that rule by referencing popular guitar-oriented songs to demonstrate its principles. You'll find hundreds of examples of guitar-driven songs for you to research on your own as you work through each lesson in this book.

It's not necessary to learn all the songs I suggest. Focus on the songs that most interest you but don't be afraid to try something new. I recommend that you first learn a song as it's notated, then explore other ways the same parts could be played. Then you can apply what you learn to your own music.

In order to learn the songs listed in the lesson plans of this book you'll need to seek out accurate transcriptions and recorded versions of the music. You may also find it helpful to work with your friends or find a good instructor.

Transcriptions

Fretboard Theory is not a tabbed songbook but rather a method for learning the *theory* behind music and popular songs, with lots of references present. The song recommendations will need to be looked up and learned *on your own*. You can find these songs transcribed in guitar magazines, tab books, other instructional books, and video websites.

I urge you to consult with the most accurate sources available. At this stage of your development you want to make sure you're not missing the important details so don't be afraid to pay for the good stuff. The tab you find on the Internet is rarely complete or accurate.

During my research for this book I relied heavily upon tab books published by the Hal Leonard Corporation. This company has an excellent selection of authentic guitar and bass transcriptions. For more information including a complete listing of the artist series tab books and sheet music available visit your local music store or log onto <http://musicdispatch.com>. Also, check out <http://musicnotes.com> and <http://sheetmusicdirect.com>. These two web sites offer you the option of purchasing and immediately printing authentic tab by individual song. You don't have to wait for materials to arrive in the mail and you don't have to pay for a whole book!

Don't forget to also search the videos posted at <http://youtube.com> and <http://video.google.com> for live performance clips and song learning lessons.

Recordings

In order to successfully learn the song examples I recommend, you'll not only need tab but also copies of the recordings. Listen to the songs carefully especially when working out the parts. Always check that you're reproducing the parts just as you hear them. Play along with the songs until you can follow the band without missing a beat.

Getting music these days is incredibly easy. All the examples listed in each lesson are, of course, guitar-oriented so you're likely to already own copies of the recordings. If you don't have a specific tune ask a friend. If not, there are websites like <http://rhapsody.com> that allow you to stream unlimited songs for a small monthly fee (they offer a free trial). If you prefer, songs can be purchased and downloaded individually there and also at iTunes (<http://apple.com/itunes>) and <http://amazon.com>.

Studying with an Instructor

There are lots of songs that you'll need to learn on your own and a good teacher can make a huge impact on your progress. Unfortunately, it's not always easy to find such an instructor. A good instructor is one who can construct lesson plans that cater to your interests and has the talent, experience and know-how to help you achieve your goals even if that means simply learning songs.

Look up all the instructors in your area who have a good reputation of helping students build their repertoire. Meet them and explain to them exactly what tunes you want to learn. Attend their performances to see if their style is a match for you. Ask their students how satisfied they are with their lessons. Your efforts will be well worth it if you find the right teacher.

The Importance of Songs

Not interested in learning songs? Consider this. I've never met an accomplished, successful musician who didn't know how to play a ton of popular songs. The players I meet that struggle with their musicianship despite having a reasonable amount of knowledge and ability always seem to be the ones who have failed to learn, practice and study parts from recorded music. Whether they stubbornly refuse to be influenced by another's work, or are too lazy to go the extra mile, these half-hearted musicians never get everything totally together. Don't let this happen to you!

Let's Get Started

Are you ready to get started? In the first chapter you'll review some basic information that will help you assimilate the rest of the material in this book. Don't skip it! Take your time and follow all the instruction. You're on your way to solving a big puzzle. Good luck!

Chapter I

A Quick Review

About This Chapter

In this first chapter you'll review the notes on strings six and five and explore a few tricks to help you remember the location of these key notes. You'll also learn some important things about whole-steps, half-steps, flats, sharps and octaves. Since chord shapes and scale patterns usually originate from either the sixth string or the fifth string, this information is necessary in order for you to follow the lessons in each chapter throughout this book.

Topics Covered

1. Natural notes
2. Notes on string six
3. Notes on string five
4. Whole-steps and half-steps
5. Sharps and flats
6. Octaves

Underlined Letters

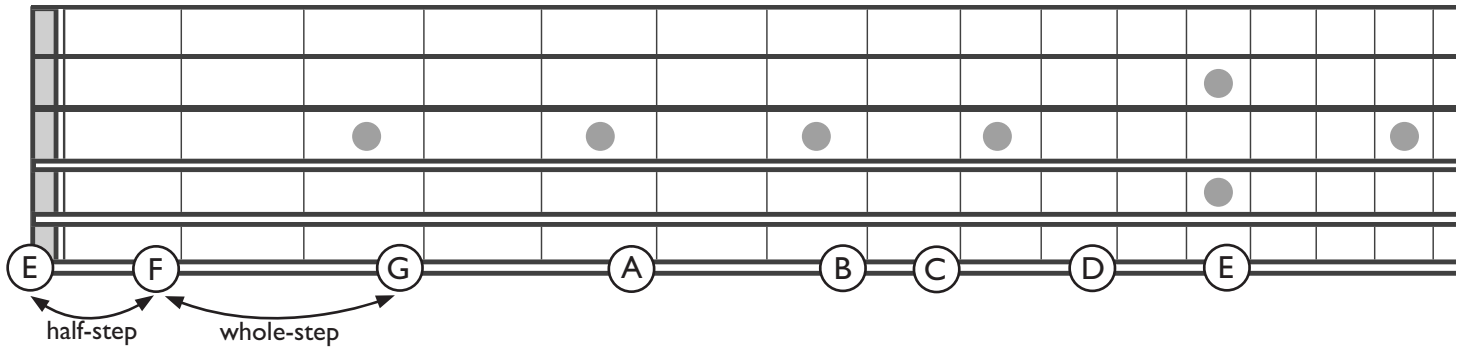
In order to avoid confusion between the text and letters that represent musical notes, all notes are underlined throughout this book. For example, A minor scale, G major seven, etc. Likewise, some numbers and Roman numerals are underlined.

Natural Notes

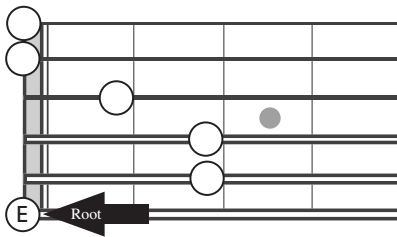
Natural refers to a note that isn't followed by a flat or sharp sign. The natural musical notes are simply the letters A through G. There are several associations that are helpful in remembering the location of these notes on strings six and five. If you follow these tricks, then it will be very easy to fill in the blanks and learn the rest of the fretboard.

Notes on Sixth String E

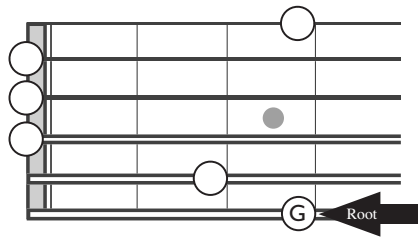
The sixth string open is E and it's the root of the common open E chord. The third fret is G and it's the root of the common open G chord. The fifth fret is A and it matches the open A string. This is why the fifth fret is commonly used for relative tuning. The twelfth fret is E one octave higher than the open position and is specially marked with an additional dot.



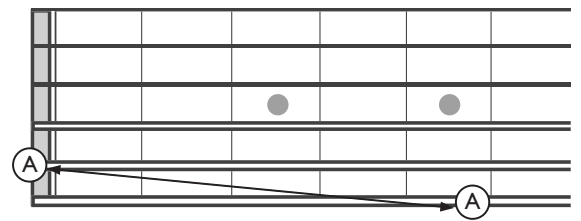
Open E Chord



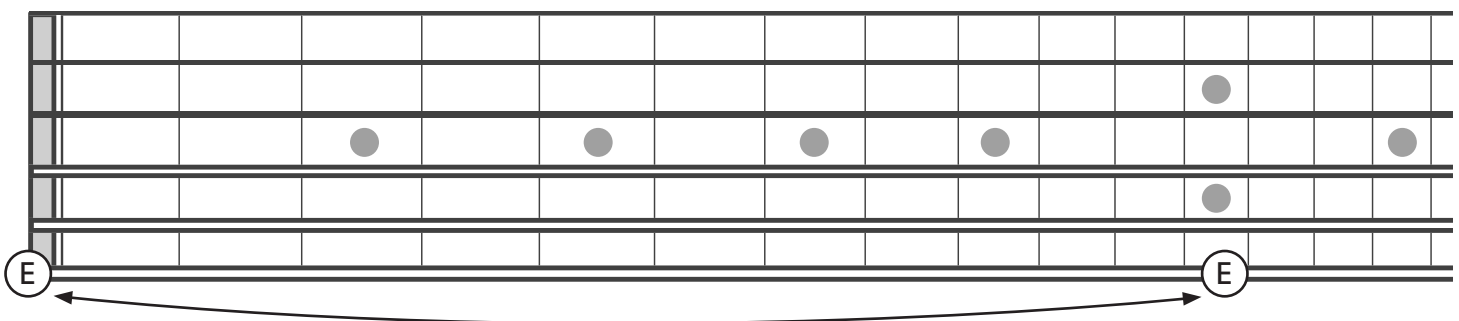
Open G Chord



Relative Tuning

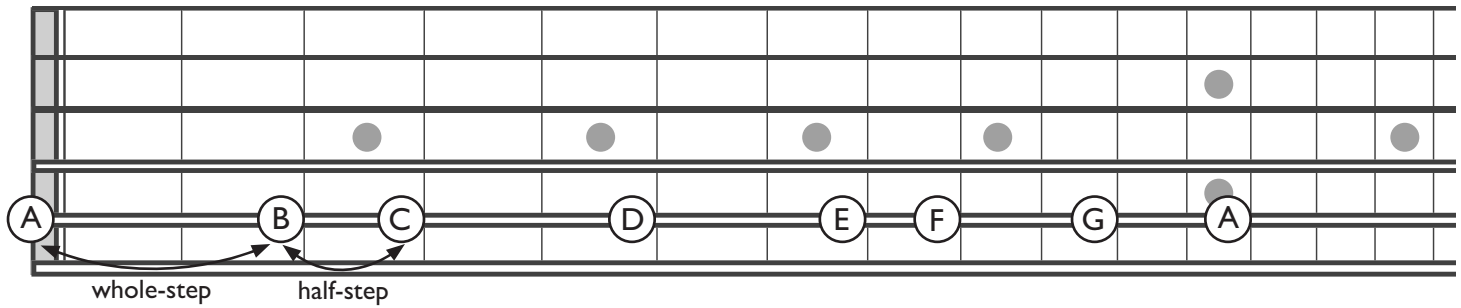


Octave

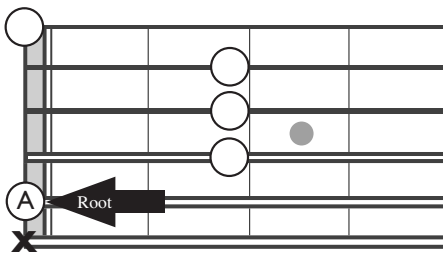


Notes on Fifth String A

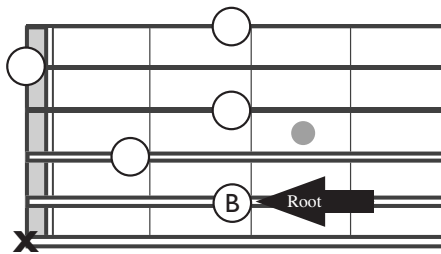
The fifth string open is A and it's the root of the common open A chord. The second fret is B and it's the root of the fairly common open B7 chord. The third fret is C and it's the root of the common open C chord. The fifth fret is D and it matches the open D string. The seventh fret is E and it's one octave higher than the sixth string E (exactly the same as the twelfth fret of string six). The twelfth fret is A one octave higher than the open position.



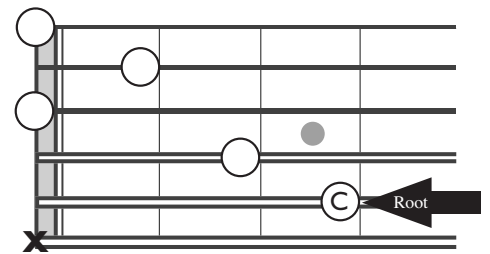
Open A Chord



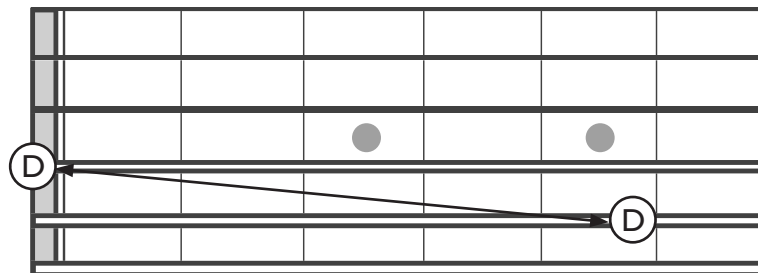
Open B7 Chord



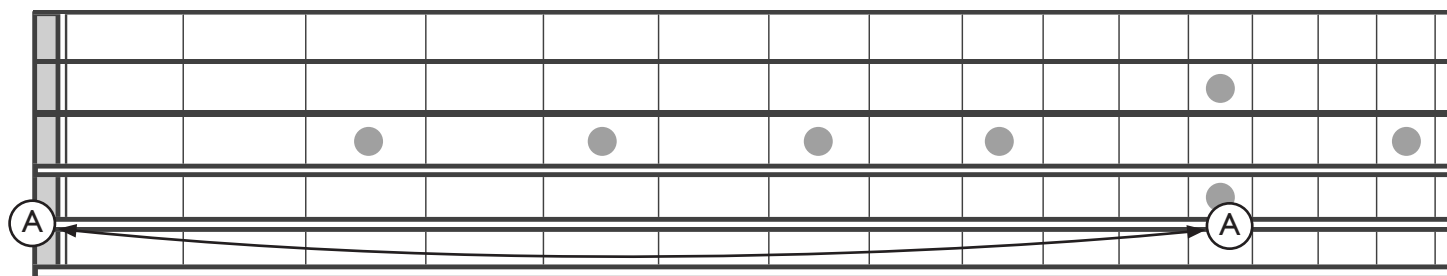
Open C Chord



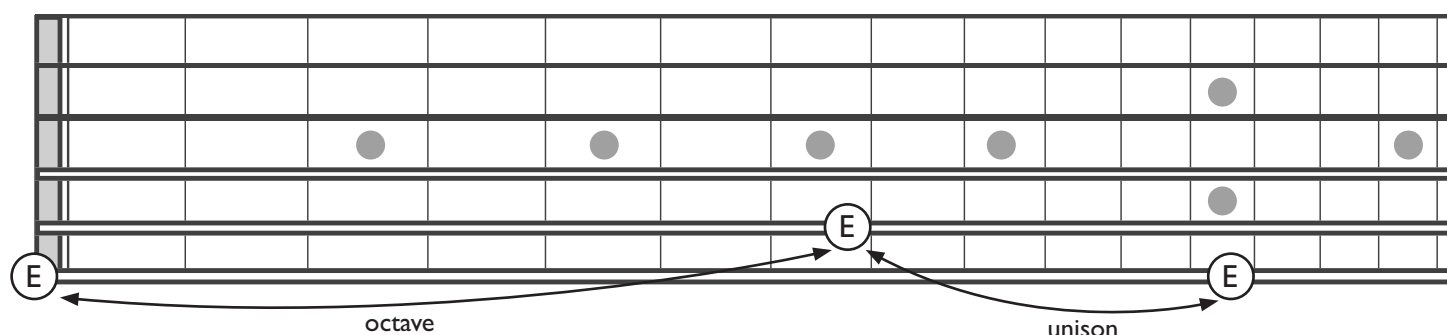
Relative Tuning



Octave



E Notes



Whole-Steps and Half-Steps

Musical notes are used in order A through G. Some notes are two frets apart while others are only one. Two frets are equal to the musical distance known as a whole-step. One fret is equal to the distance known as a half-step. This is a little confusing at first. You'd expect that moving up one whole fret would be equal to one whole step but it's not.

The distances between the notes remain the same in every octave regardless of location. In other words, A to B is always a whole-step (two frets) regardless of their location on the fretboard. B to C is always a half-step (one fret), and so on. B & C along with E & F are only a half-step apart. There's no space between these notes. All other notes are a whole-step apart and will always have a fret between them.

String Six: Filling in the Spaces

1. E & F are always right next to each other, just a half-step apart. Wherever there's an E, an F note is always a half-step higher in the very next fret. So, if the sixth string open is E, then the first fret must be an F.
2. You already know that the third fret is G and the fifth fret is A. If the fifth fret is A, then the next note to locate is B because the notes are used in alphabetical order.
3. B is a whole-step, two frets, above A.
4. B & C are always right next to each other, just a half-step apart. Wherever there's a B, a C note is always a half-step higher in the very next fret.
5. C to D is a whole-step
6. You should already know that the next note is E, one octave higher than the open E. Two dots or inlays mark the twelfth fret for this reason.

String Five: Filling in the Spaces

1. If the fifth string open is A, then the next note to locate is B. If the fifth string open is A, then B is a whole-step higher at the second fret (the root of the fairly common open B7 chord).
2. You already know that the third fret is C and the fifth fret is D.
3. From D, E is a whole-step higher.
4. From E, F is at the very next fret a half-step higher.
5. F to G is a whole-step.
6. The next note is at fret twelve. What is it?

Exercise

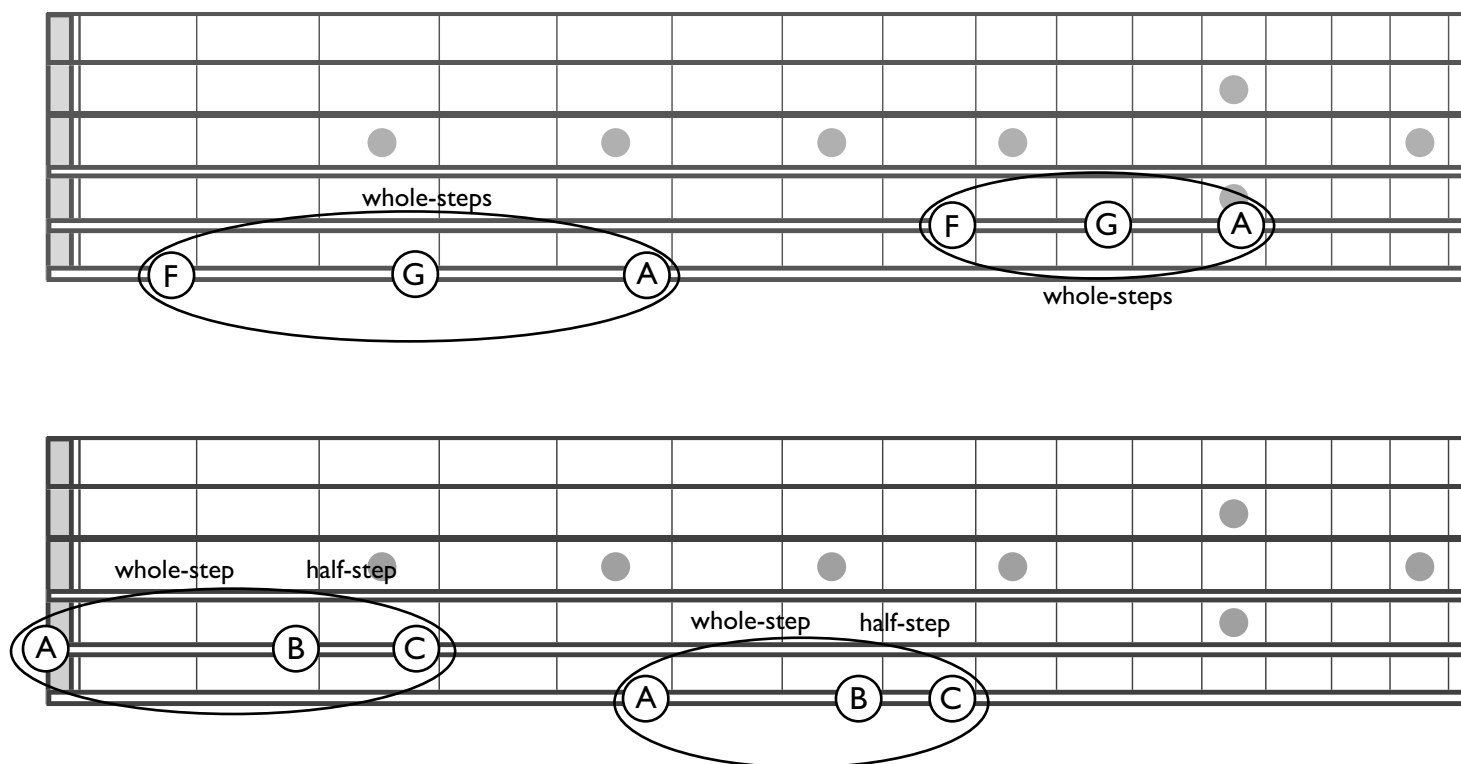
Following the alphabet and the half-step/whole-step layout, move up the neck playing and saying aloud each natural note on strings six and five. Once you have the notes down, try starting at the twelfth fret and moving backward.

The Twelfth Fret

Notice how the notes repeat again in a higher octave every twelve frets. That's why most guitars have the twelfth fret specially marked with two dots. It's at the twelfth fret where all the open string notes repeat in a higher octave. Or, it's where the fretboard starts over one octave higher. The inlays, or dots, between the open position and twelfth fret correspond to the inlays after the twelfth fret in terms of notes. For example, G is located at the first dot (most guitars have a dot at the third fret) from the open sixth string and likewise an octave G is located at the first dot from the twelfth fret on the same string.

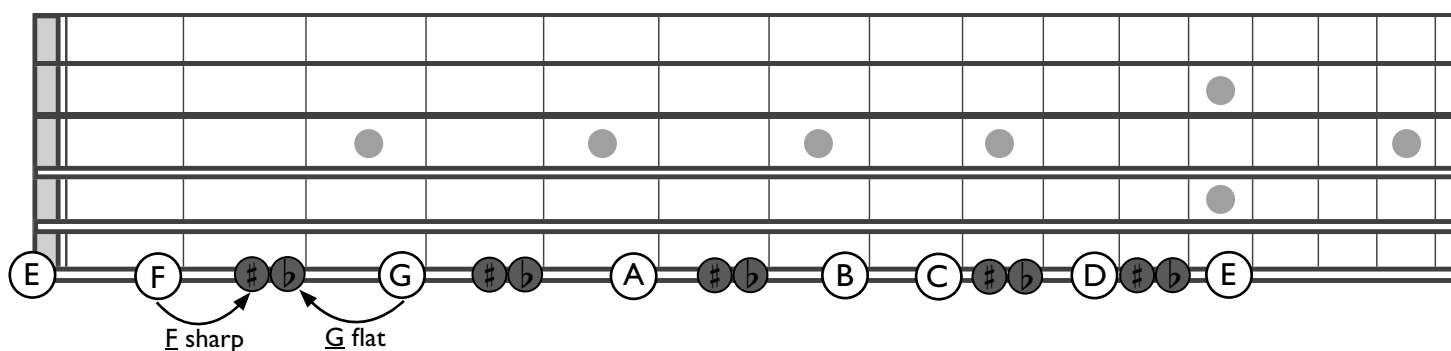
Groups

The following diagrams illustrate the location of two groups of key notes. The first diagram illustrates how F, G and A are all a whole-step apart and where this group is located on strings six and five. The second diagram illustrates how A, B and C are one whole-step and one half-step apart and where this group is located on strings six and five. Take a moment and study these examples.



Sharps[#] and Flats^b

Sharp ([#]) means a half-step, one fret, higher. For example the second fret of the sixth string is F[#] meaning a half-step higher than F at the first fret. Flat (^b) means one half-step lower. The same F[#] is also considered G^b meaning a half-step lower than G at the third fret. The fret between G and A is G[#] or A^b and so on up the neck. There's no fret between B & C, or E & F. If you need help remembering the difference between sharp and flat, think of a flat tire. It makes a car *lower* to the ground.

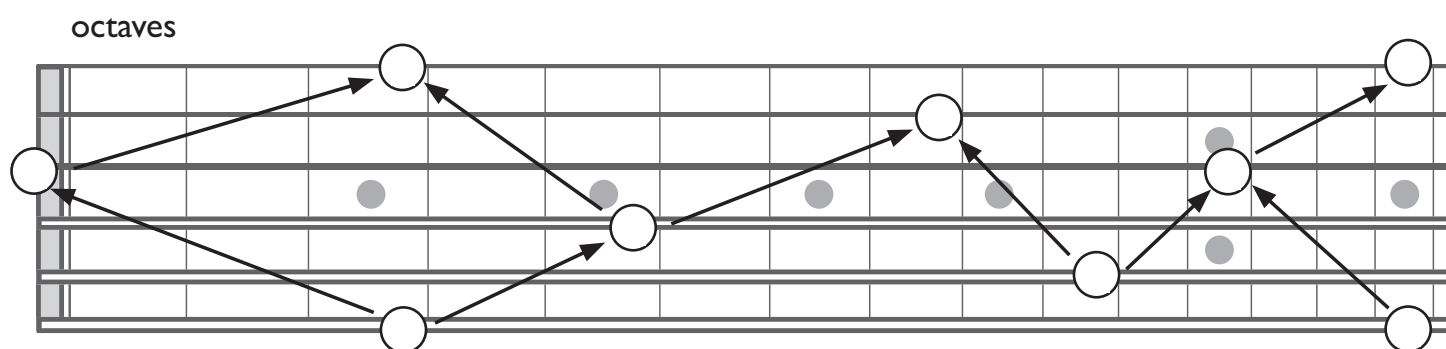


Octaves

If you know the notes along strings six and five, then you can use the octave system to locate these notes elsewhere on the fretboard. The octave system works as follows.

1. Any note on string six can be played in the next octave by moving over two strings and up two frets.
2. Any note on string five can also be played in the next octave by moving over two strings and up two frets.
3. Any note on string four can be played in the next octave by moving over two strings and up *three* frets.
4. Any note on string three can also be played in the next octave by moving over two strings and up *three* frets.

You can also play octaves between strings six and three and strings four and one. These octaves along with the octaves described above are all illustrated in the following diagram. In this example all the notes are G.



The Important Strings

In upcoming chapters you'll learn that chord shapes and scale patterns originate from either the sixth string or the fifth string. In addition, any note on the other strings can be traced back to these strings using the octave system. Because of this, it's only necessary to study the notes on these strings. Sharps and flats can easily be used to fill in the spaces so you need only to review the natural notes. Make sure you review and practice the info in this chapter before you move on. If you don't know the location of these key notes, then you'll easily get confused in later chapters. Learn the notes!

Conclusion

Now that you've reviewed the important notes on strings six and five and have learned to associate these notes with common chords you're ready to get into the good stuff. The next chapter deals with the very popular and useful pentatonic scale.

Chapter 2

The Pentatonic Scale

About This Chapter

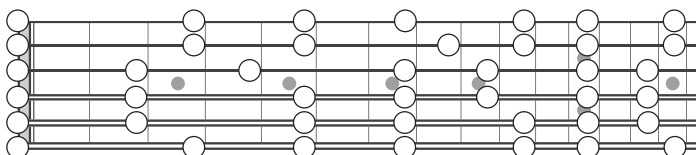
The pentatonic scale is a very popular scale used to create riffs, solos, and basslines. It's frequently used in conjunction with common chords to create more complex and melodic rhythm parts. It can even be used to compose parts for other instruments including voices. For those of you who feel you already understand the pentatonic scale well enough to skip this section, don't! Odds are you'll learn something new and valuable.

Topics Covered

1. Scale template
2. Matching shapes & connecting patterns
3. Playing across the whole fretboard
4. Fingering
5. Major and minor tonalities
6. Playing in all keys
7. Practicing
8. References to familiar songs

About the Scale

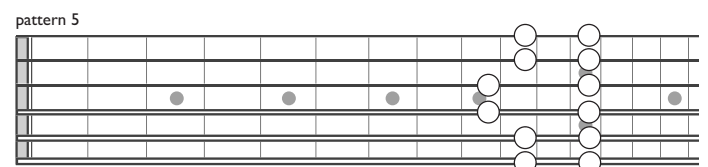
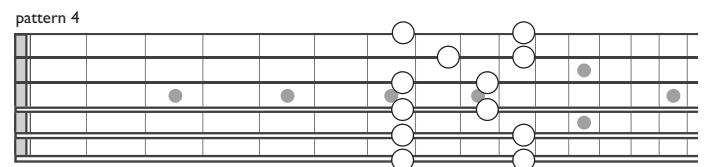
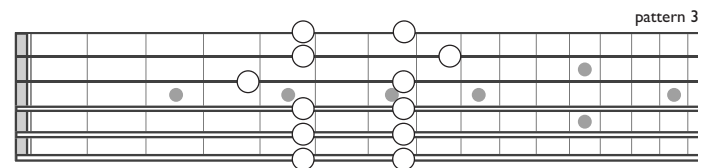
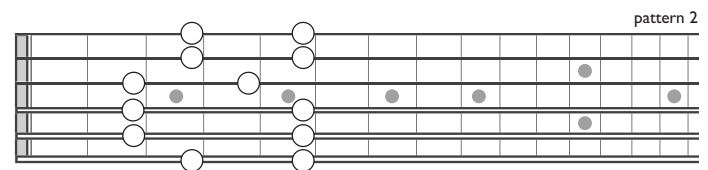
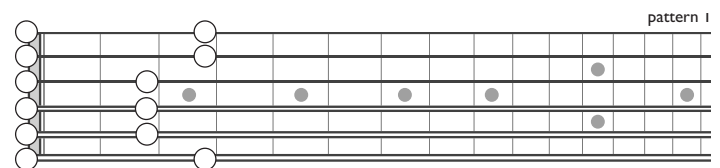
"Penta" means five. "Tonic" means tones or notes. The pentatonic scale is a five-tone scale. For example: The E minor pentatonic scale uses the notes E-G-A-B-D. Scale tones can be played in any octave and in any position. As a result, the five notes occur scattered all around the fretboard. Below you can see where the E minor pentatonic scale notes are located on the fretboard.



The Pentatonic Scale Template

The concept of matching shapes and connecting patterns is how players of fretted instruments navigate around the fretboard. In order to learn and use this scale effectively, it's necessary to chop up the notes into easy-to-play patterns. As you can see in the next group of diagrams, there are five different pieces that connect to complete the whole puzzle.

These patterns should be completely memorized. Start with pattern one and play up and down it repeatedly until doing so becomes a routine and you don't have to think about what you're doing. When you've memorized pattern one completely, continue with the others.



Pentatonic Scale

E minor

Pattern I

The image shows the musical notation and guitar/bass tablature for the first pattern of the E minor pentatonic scale. The guitar part is in treble clef and the bass part is in bass clef. The tablature shows fret numbers for each string (T, A, B) for both guitar and bass. The pattern is labeled 'Pattern I'.

This notation and tablature shows you how to play up and down pattern one. Play up and down the remaining patterns in the same manner.

Fingering

There are a few different ways you can finger the patterns that make up the pentatonic scale template. There is no perfect fingering and you'll surely end up utilizing more than one depending on what you're trying to play. As a general rule don't use your index and middle fingers alone. This approach isn't efficient and will make you look and sound like a hack.

Many guitarists learn the patterns best by using all four fingers. The notes of each pattern are spread across four frets. The exception to this rule is pattern three which is spread across five frets. Using four fingers allows you to use one finger per fret and makes it easier to visualize the patterns. You may prefer to use only your index and ring fingers. This approach helps many guitarists generate more power and control without getting adjacent fingers tangled up.

By the way, if you're not already doing so, alternate your pick! Bass players should alternate their index and middle fingers.

Matching Shapes

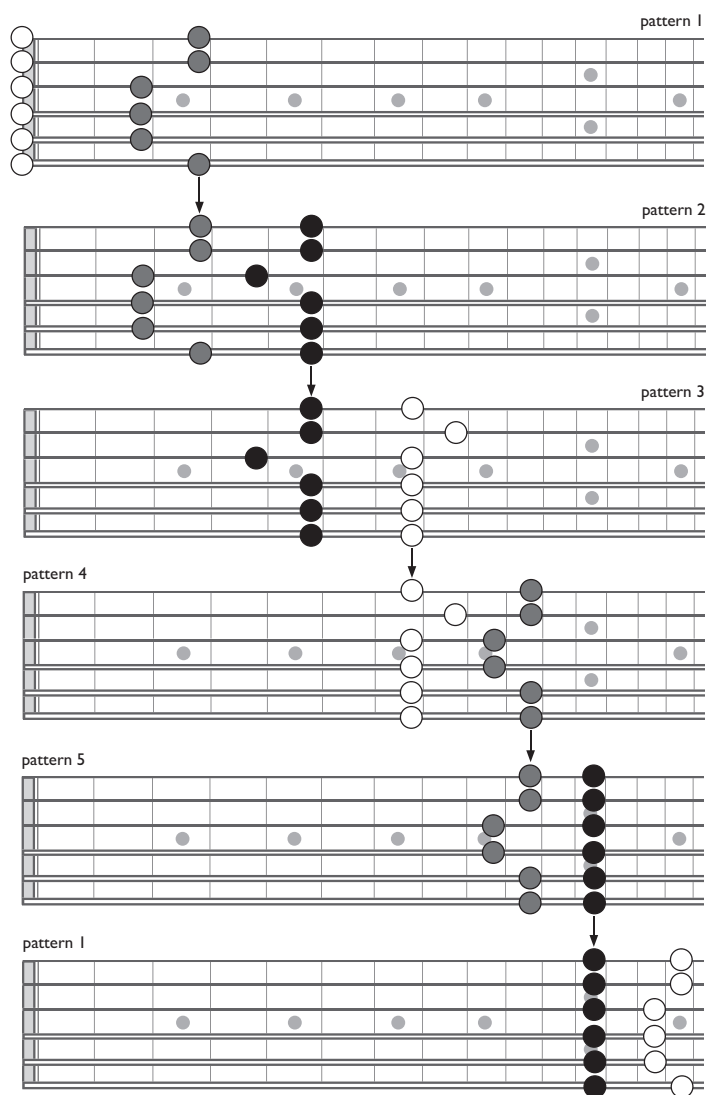
The methods in this book emphasize matching shapes. The combination of horizontal strings and vertical frets creates a grid out of the fretboard. Rather than focusing on the notes of the scales and chords you play, it's easier and absolutely necessary to visualize the patterns and shapes that result on the fretboard. This is what separates guitarists from other instrumentalists.

Connecting the Patterns

The diagrams on the next page are color coded to illustrate how a portion of each pattern is reused for the following pattern. It's essential for guitarists to visualize these shapes and how they connect to one another. As you put the whole pentatonic scale puzzle together, don't dwell on the fret numbers. They will always be different depending on the key. The shapes, and how they connect, will never change. Match the shapes!

Pattern one connects to pattern two. Pattern two connects to pattern three and so on. The patterns start over an octave higher after pattern five. Pattern five connects to another pattern one. The new pattern one, an octave higher than the original, connects to another pattern two and so on until you run out of fretboard.

The neck diagrams used throughout this book only illustrate patterns just past the fifteenth fret. When you're piecing together the pentatonic scale template you should continue connecting patterns until you run out of fretboard. Things get easily crowded past the twelfth fret. You may have to change your fingerings. Acoustic guitar players may have to give up before the entire fretboard is finished.



Practice

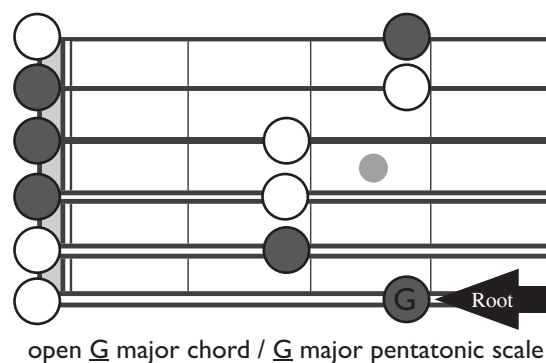
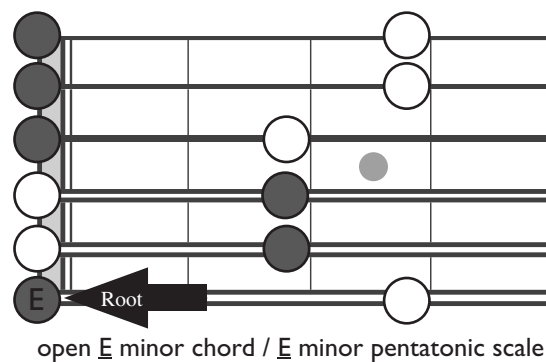
Learn and memorize the five patterns of the pentatonic scale template now (whether it takes 15 minutes or a week). Focus on one pattern at a time. Eventually, connect the patterns until you run out of fretboard, then trace your way back to where you started. Come back and read on when you're done.

FYI. In order to develop a comprehensive understanding of music theory you normally would begin by studying the major scale. However, most guitar players are more familiar with the pentatonic scale and more comfortable playing the common "box shape" patterns it creates. From a playing perspective it makes more sense to concentrate on the pentatonic scale first. You'll learn about the major scale in later chapters.

Major and Minor Pentatonic

Nearly all guitarists understand the pentatonic scale as a minor scale. Very few realize that it can be major also. To truly comprehend the difference and benefit of knowing both you'll have to learn song examples (which will be mentioned shortly). In the meantime let's explore a visual example.

Notice in the next two diagrams how both an E minor chord and a G major chord can be built from this pentatonic scale (shaded circles represent chord shape). No other basic chords can be made. This scale can function in two different ways and as a result has two possible names: 1.) The E minor pentatonic scale or 2.) The G major pentatonic scale.



You can use this pentatonic scale to play over songs with an E minor tonality and also songs with a G major tonality. You can always use pattern one to determine the two possible keys of any given pentatonic scale. The first note in pattern one will always be your minor root. The second note in pattern one will always be your major root. Did you ever think of using this scale to play over a song with a G major tonality? Did you know that a large portion of popular music utilizes the pentatonic scale in this way? You'll learn more on this later.

Riffs, Solos, Melodies, and Basslines

The songs in the following list include melodies, riffs, solos and bass lines that use the E minor pentatonic scale (called so because E functions as the root). Look up and learn these songs on your own. You don't need to learn each song in its entirety, just focus on the pentatonic part.

E Minor Pentatonic Scale

"Susie Q" Creedence Clearwater Revival.....	Gtr. Riff
"Green River" Creedence Clearwater Revival.....	Gtr. Riff
"Purple Haze" Jimi Hendrix.....	Gtr. Riff
"Are You Gonna Go My Way" Lenny Kravitz.....	Gtr. Riff
"Voodoo Child (Slight Return)" Jimi Hendrix.....	Gtr. Riff
"Back In Black" AC/DC.....	Gtr. Riff
"Man in the Box" Alice In Chains.....	Gtr. Riff/Vocal Melody
"Play That Funky Music" Wild Cherry.....	Bass & Gtr. During Verse
"Paranoid" Black Sabbath.....	Gtr. Solo
"Hey Joe" Jimi Hendrix.....	Gtr. Solo
"Turn Off the Light" Nelly Furtado.....	Gtr. Solo
"Pawn Shop" Sublime.....	Bass, Gtr. Solo

Various patterns, including pattern combinations, are used in different songs. Parts can start on any note.

The songs in this next list use the G major pentatonic scale (called so because G functions as the root).

G Major Pentatonic Scale

"Honky Tonk Woman" The Rolling Stones.....	Intro Gtr. Lick
"Wish You Were Here" Pink Floyd.....	12-String & Lead Gtr. Intro, Bass
"Sweet Home Alabama" Lynyrd Skynyrd.....	Gtr. Intro & Solos
"Centerfold" The J. Geils Band.....	Gtr. Riff
"Cannonball" Duane Eddy.....	Gtr. Riff
"Amazing Grace" Hymn.....	Vocal Melody

Various patterns, including pattern combinations, are used in different songs. Parts can start on any note.

Learn and memorize *on your own* some of these pentatonic examples. I offer some free online tab to all web visitors that will help you get started. *If you haven't already received an e-mail notification about this, then follow the instruction at the end of this chapter.* "Amazing Grace" is just one example I notated for you below.

Amazing Grace

G Major Pentatonic Scale

Pattern I

Gtr.

"A maz ing grace how sweet the sound that saved a wretch like

T
A
B

0 0 0 0 2 0 2 0 0 0 2

Pattern 4

Bass

T
A
B

10 10 9 10 9 7 10 7 10 10 10 9 10 9 7

Continued on next page

8

me I once was lost but now am

13

found was blind but now I see

Transposing

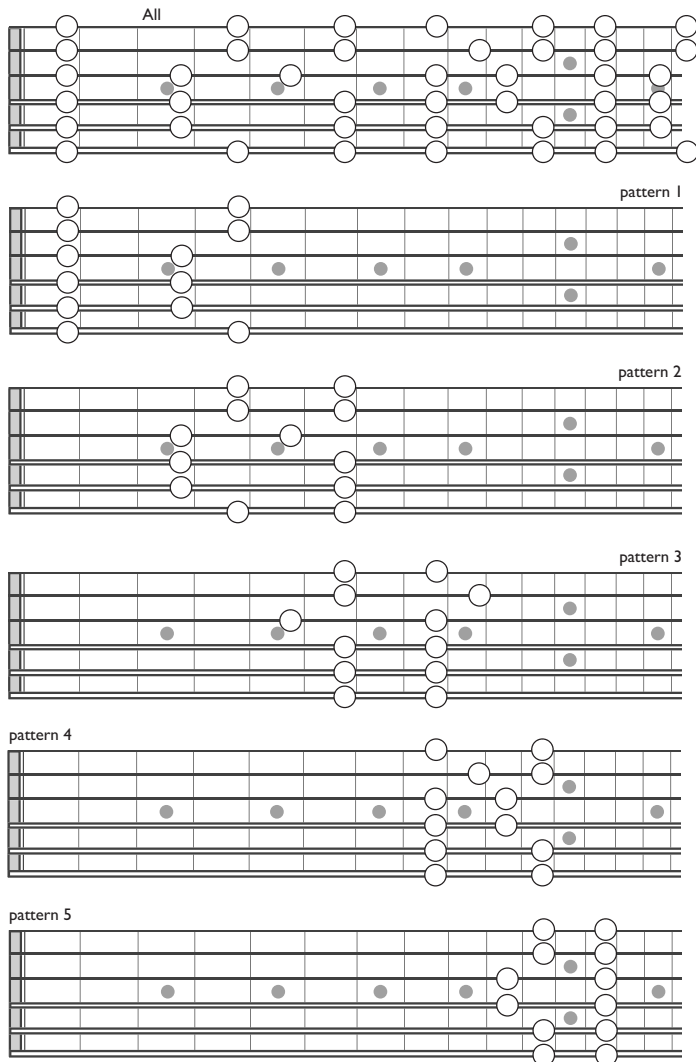
Now that you've memorized all five pentatonic scale patterns, learned how to connect them, and realized that there are two possible roots, it's time to transpose the scale to different keys. You'll shift the whole pentatonic scale template to accomplish this.

You can shift the template by simply starting pattern one at a different fret. For example, if you start pattern one at the first fret, rather than from the open E, you'll have transposed to a new key. You'll no longer be able to utilize the open strings in this key. As a result, you'll have to finger all the notes. Remember that the first note in pattern one will always be your minor root and the second note will always be your major root.

When you start pattern one at the first fret, the first note is no longer E. It's now F. Likewise, the second note is no longer G. It's now A^b. This new key is F minor, or A^b major pentatonic. Pattern one connects to pattern two just the same and so on. The diagram on the next page illustrates how things lay out in this new key. Practice playing the entire pentatonic scale template in this new key.

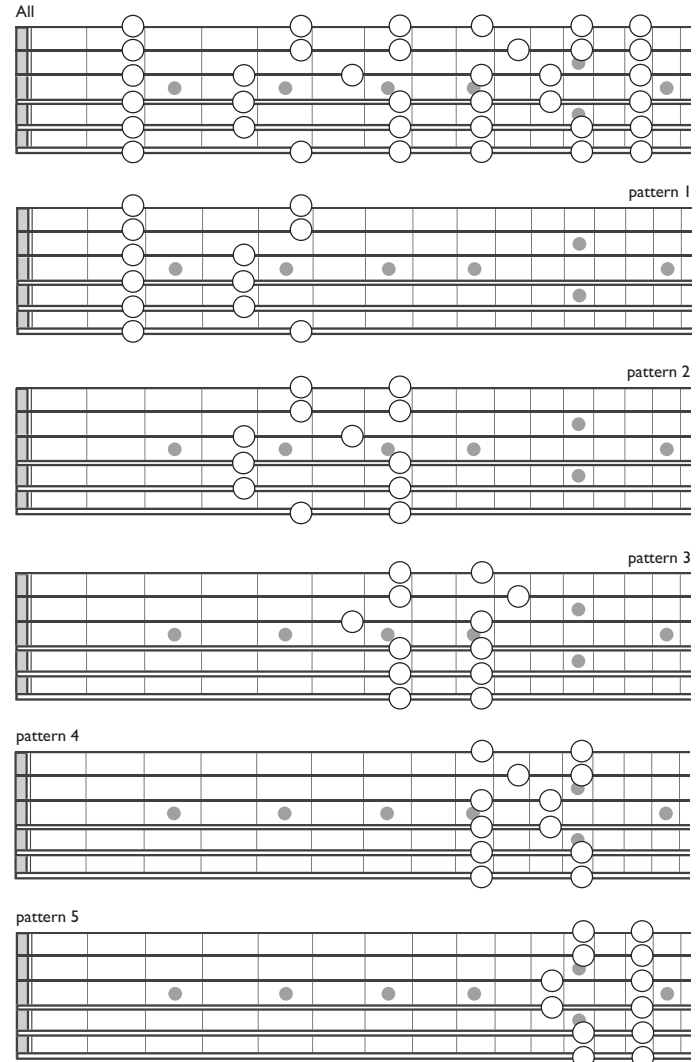
Continue connecting until you run out of fretboard. Hopefully you now see why you should learn the pentatonic scale patterns by shape rather than fret numbers. You didn't memorize the fret numbers from the previous key did you?

F Minor/A^b Major Pentatonic Scale



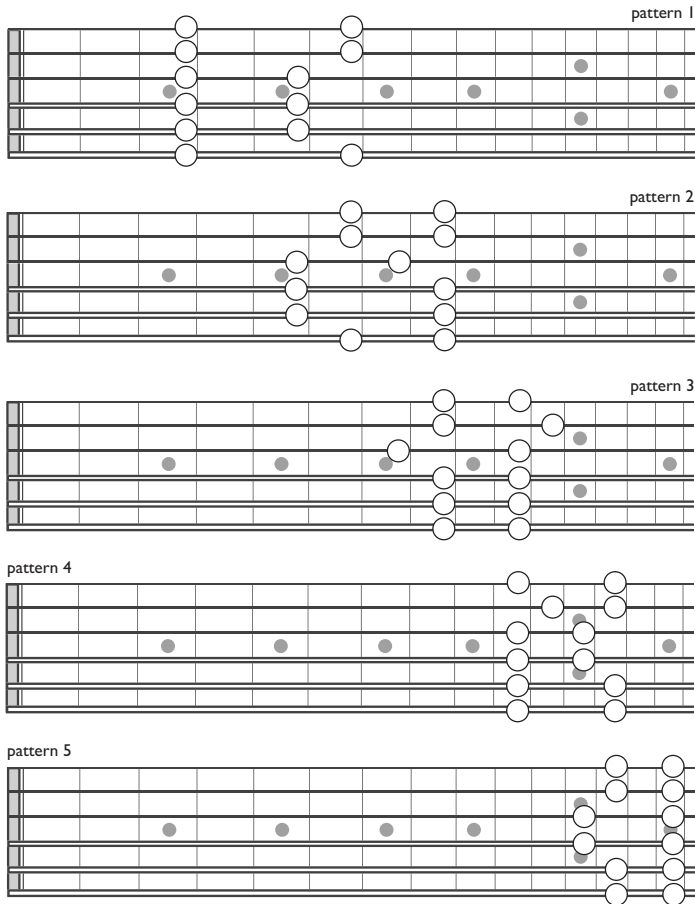
You can play the pentatonic scale starting at any fret and in any key. The next group of diagrams illustrates the pentatonic scale template starting at the second fret. From this new starting point the first note in pattern one is now F[#]. The second note in pattern one is now A. This creates the F[#] minor, or A major pentatonic. Continue connecting the patterns until you run out of fretboard.

F[#] Minor/A Major Pentatonic Scale



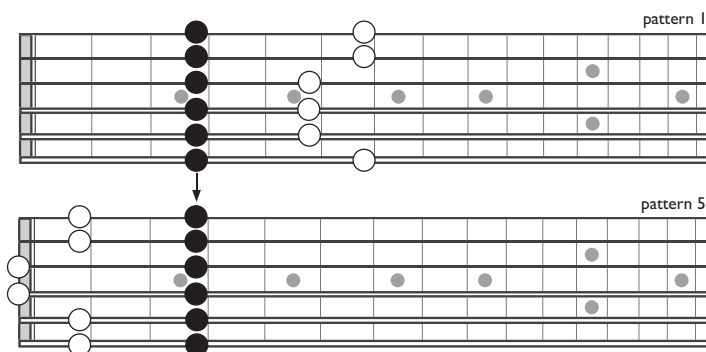
The group of diagrams on the next page illustrate the pentatonic scale template starting at the third fret. From this new starting point the first note in pattern one is now G. The second note in pattern one is now B^b. This creates the G minor, or B^b major pentatonic.

G Minor/B^b Major Pentatonic Scale



Connecting Backward

As you practice playing in different keys, don't forget to consider the section of fretboard before pattern one. When you start pattern one at the third fret there is room to fit in a pattern five before it. This is illustrated in the following diagrams.



Songs

The songs in the following list use the G minor pentatonic scale. G is now the first note in pattern one and it functions as the root in these examples. Learn, memorize and practice some or all of these tunes. Come back and read on when you're done.

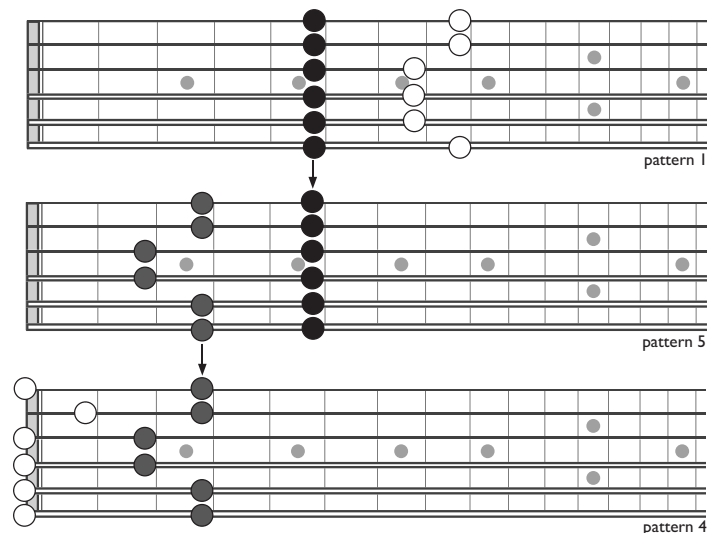
G Minor Pentatonic Scale

"Lowrider" War.....	Bass
"Born Under a Bad Sign" Cream.....	Bass
"Lady Marmalade" Patti Labelle.....	Bass & Gtr.
"Money for Nothing" Dire Straits.....	Gtr. Riff
"I Shot the Sheriff" Bob Marley/Eric Clapton.....	Gtr. Riff at Chorus End
"My Generation" The Who.....	Bass Solo
"Play That Funky Music" Wild Cherry.....	Bass & Gtr. During Chorus
"Are You Gonna Go My Way" Lenny Kravitz.....	Gtr. Riff
"I Can't Make You Love Me" Bonnie Raitt.....	Vocal Melody

Various patterns, including pattern combinations, are used in different songs. Parts can start on any note.

Still Connecting Backward

When you play in the key of A minor (C major) there is room for a pattern five and also a pattern four before pattern one begins. The higher you place pattern one on the fretboard the more patterns will come before it. You can figure this out by moving backward from pattern one. Pattern one connects back into pattern five, pattern five connects back into pattern four and so on.



Practicing

Practice playing daily the pentatonic scale in different keys. Continue connecting the patterns until you run out of fretboard in BOTH directions. In other words, don't forget that a pattern one can connect back into a pattern five, five back into four, etc. Additionally, remember that patterns can fall in the open position. Don't forget to factor in the open strings.

More Songs

The following list includes more pentatonic scale songs to learn. Remember that the pentatonic scale, like any scale, can be used in any key, in any pattern, or in any combination thereof. Parts can start on any note. Learn, memorize, and practice some or all of these examples (no matter how long it takes). You don't need to learn each song in its entirety, just focus on the pentatonic part. Come back and read on when you're done.

More Pentatonic Scale

"Amie" Pure Prairie League.....	Gtr. Intro (A major)
"All Right Now" Free.....	Gtr. Solo 2:28 (A major)
"La Grange" ZZ Top.....	Gtr. Intro (A minor)
"Tweezer" Phish.....	Gtr. Intro (A minor)
"Tomorrow" Silverchair.....	Gtr. Rhy. Fig 2 (A minor)
"Breakdown" Tom Petty.....	Gtr. 2 Intro (A minor)
"All Right Now" Free.....	Gtr. Solo 2:04, 3:14 (A minor)
"Jessica" The Allman Brothers Band.....	Bass Intro & Chorus (A major)
"Upside Down" Jack Johnson.....	Gtr. Riff 0:11 (E major)
"I Love Rock 'N Roll" Joan Jett.....	Gtr. & Bass Verse (E minor), Gtr. Solo (E major)
"Yellow Ledbetter" Pearl Jam.....	Gtr. Solo (E major)
"Blue Sky" The Allman Brothers Band.....	Gtr. Intro & Solo (E major)
"Gasoline Alley" Rod Stewart.....	Gtr. Vocal Melody 0:29 (E major)
"Meet Virginia" Train.....	Gtr. Solo (E minor)
"Running Down a Dream" Tom Petty.....	Gtr. Solo 3:02 (E minor)
"Good Times Bad Times" Led Zeppelin.....	Gtr. Solo 1:30, 2:03 (E minor)
"Come Down" Bush.....	Bass Fig. 1 (E minor)
"Money" Pink Floyd.....	Gtr. & Bass Intro & Verse (E minor)
"Couldn't Stand the Weather" SRV.....	Gtr. Intro Eb Tuning (B, A, G minor)
"My Girl" The Temptations.....	Gtr. 1 Riff A & B (C & F major)
"Better Together" Jack Johnson.....	Gtr. Intro (E major)
"Stayin' Alive" The Bee Gees.....	Gtr. 2 Riff A (E minor)
"Beverly Hills" Weezer.....	Gtr. Solo 1:43 (E minor)
"Let It Be" The Beatles.....	Gtr. 1 Verse 2 (C major)
"American Woman" Lenny Kravitz.....	Gtr. Solo (B & C minor)
"Hey" Red Hot Chili Peppers.....	Gtr. Interlude (C minor)
"A Life of Illusion" Joe Walsh.....	Gtr. Intro Riff Drop-D Tuning (D major)
"Maggie May" Rod Stewart.....	Gtr. Solo (D major)
"Spoonman" Soundgarden.....	Gtr. & Bass Riff, Drop-D Tuning (D minor)

Various patterns, including pattern combinations, are used in different songs. Parts can start on any note.

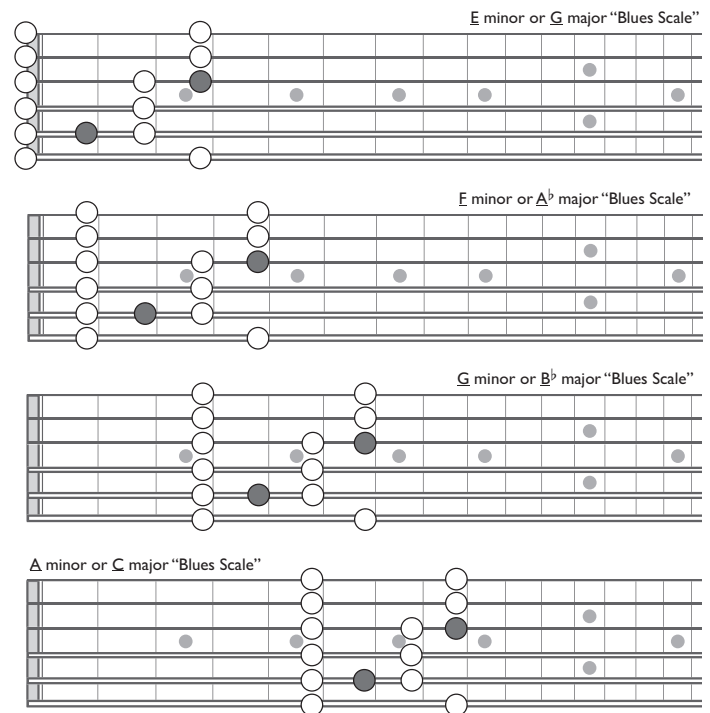
Chromatic Passing Tones

As common as the pentatonic scale is, so too is its use in combination with chromatic passing tones. Chromatic passing tones are notes, not in a scale or key, that are used to bridge the gap between scale tones, or help a series of notes to *pass* from one scale tone to another.

With the pentatonic scale, this frequently occurs between the notes that are a whole-step apart. The most common application occurs between the scale tones on string five in pattern one. The diagrams at the bottom of the page illustrate pattern one in various keys with this common chromatic passing tone added. Notice that the added tone occurs twice in pattern one, first on string five and again in the next octave on string three.

"Blues Scale"

This version of the pentatonic scale is common in blues music and has been adopted by all popular styles today. When the pentatonic scale includes this particular passing tone the scale is commonly referred to as the "blues scale."



"Blues" Scale

E minor

Pattern I

Gtr.

Bass

5

Notation

The notation example above shows you how to play up and down the E minor, or G major, “blues scale” pattern one in the open position.

Other Patterns

Like the scale tones that make up the pentatonic, this chromatic passing tone is also located all over the fretboard. You’ll understand how the addition of this note affects the patterns by learning the song suggestions on the next page.

Blues Scale Songs

The list on the next page includes songs that use the pentatonic scale in combination with the chromatic passing tone you just learned. Learn and memorize some or all of these examples. Come back and read on when you’re done.

Occasionally a chromatic passing tone will be used between the scale tones on string four in pattern one. Of course, it can occur in any pattern but pattern one is a good start. The song “Black Dog” by Led Zeppelin demonstrates this well.

“Blues Scale”

“Take It Easy” The Eagles.....	Gtr. Intro (<i>G</i> major)
“Sir Duke” Stevie Wonder.....	Band Riff (<i>B</i> major)
“Pride and Joy” Stevie Ray Vaughan.....	Gtr. Intro Turnaround (<i>E</i> minor)
“Roadhouse Blues” The Doors.....	Gtr. Riff (<i>E</i> minor)
“The Old Man Down the Road” John Fogerty.....	Gtr. Riff (<i>E</i> minor)
“Readymade” Red Hot Chili Peppers.....	Gtr./Bass Riff 1:10 (<i>E</i> minor)
“Truckin’” The Grateful Dead.....	Gtr. Riff 0:01 (<i>E</i> minor)
“Sunshine of Your Love” Cream.....	Gtr. & Bass Intro, Verse (<i>D</i> minor)
“Heartbreaker” Led Zeppelin.....	Gtr. & Bass Intro (<i>A</i> minor)
“Rock and Roll, Hoochie Koo” Rick Derringer.....	Gtr. Riff 0:18 (<i>A</i> minor)
“Life by the Drop” Stevie Ray Vaughan.....	Gtr. Intro (<i>A</i> minor)
“Love Her Madly” The Doors.....	Gtr. Riff 0:40 (<i>E</i> minor)
“Black Dog” Led Zeppelin.....	Gtr. & Bass Riff (<i>A</i> & <i>E</i> minor)
“Bombtrack” Rage Against the Machine.....	Gtr. & Bass Riff (<i>F#</i> minor)
“Groove is in the Heart” Dee Lite & World Clique.....	Gtr. & Bass Riff (<i>A</i> minor)
“Iron Man” Black Sabbath.....	Gtr. & Bass Riff Bridge (<i>B</i> minor)
“The Lemon Song” Led Zeppelin.....	Gtr. & Bass Turnaround (<i>E</i> minor)
“Santeria” Sublime.....	Gtr. Solo (<i>E</i> major)
“Grease” Frankie Valli.....	Horn Riff (<i>B</i> minor)

Various patterns, including pattern combinations, are used in different songs. Parts can start on any note.

first positioning pattern one so that the root is the first note, then reposition pattern one so that the same root ends up being the second note. Which sounds better?

Major, Minor and the Blues

The rule is that when a song has a major chord functioning as the root, you should play the same major pentatonic scale over it. For example, the song “Yellow Ledbetter” by Pearl Jam has an *E* major chord functioning as the root and the guitar solo utilizes the *E* major pentatonic scale.

When a song has a minor chord functioning as the root, you should play the same minor pentatonic scale over it. For example, the solo section in “Stairway to Heaven” by Led Zeppelin has an *A* minor chord functioning as the root and the guitar solo utilizes (among other things) the *A* minor pentatonic scale.

The exception to this rule comes when playing blues. This style often breaks the rule by using the minor pentatonic scale over a major-based chord. For example, the song “Give Me One Reason” by Tracy Chapman has an *F#* major chord functioning as the root yet the guitar solo uses mainly the *F#* minor pentatonic scale. This creates a unique sound that is a big part of the blues flavor. Keep in mind that this application is only one of the ways in which the scale can be used and usually only sounds good with blues and blues-based rock songs.

Pentatonic Scale DVD

For more detailed instruction on the pentatonic scale including technique and sample jams, see my DVD entitled *Getting Started with the Pentatonic Scale*. More details, a free preview, and ordering information is available at my web site: <http://Guitar-Music-Theory.com>

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Applying the Pentatonic Scale

You can use the pentatonic scale to improvise and compose on your own. You can start by using all the songs listed in this chapter to do so. The parts from these songs will give you plenty of lick and phrasing ideas to use in your own playing. After you learn the recommended parts, let the song play and make up your own parts using the same pentatonic scale.

Find the Root

If you want to play over something else, including your own music, then you’ll need to figure out the root of the song. The root is the home base of a song or chord progression. You’ll recognize the root because everything seems to revolve around it and come back to it. It’s where things sound resolved or done. It’s usually where things begin and end but not always. You’ll have to use your ear to figure out the root of a song.

Using Your Ear

Here’s a good method. With a song playing in the background, play through every note on string six beginning with the open *E*. You’ll hit the root eventually and hopefully your ear will recognize it. Once you’ve found the root, you’ll have to determine whether to play the minor or major pentatonic. Play both tonalities by

Chapter 3

CAGED Template Chord System

About This Chapter

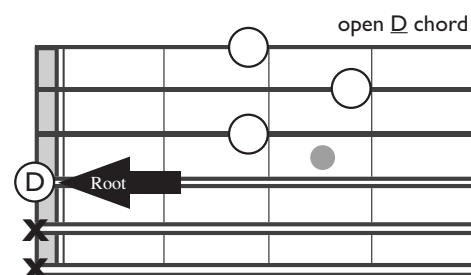
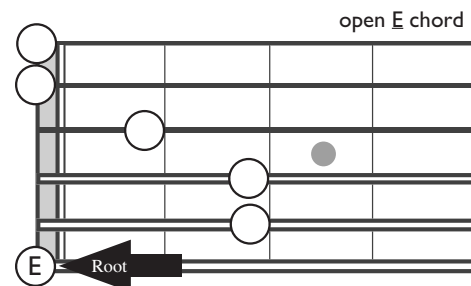
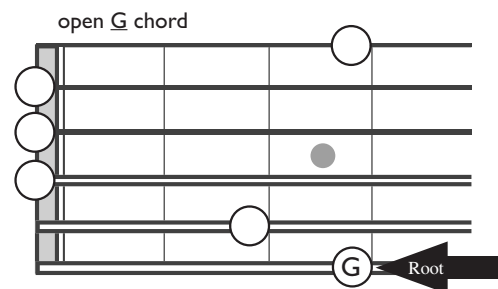
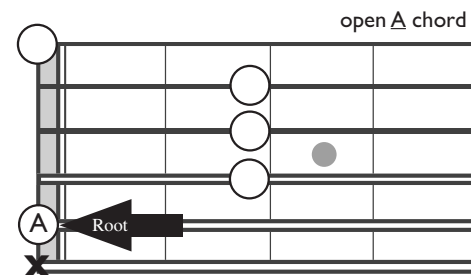
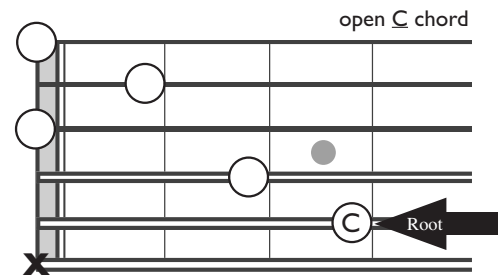
Now that you have learned all about the pentatonic scale and explored specific examples of its usage let's switch gears and talk about chords. In this chapter you'll learn the most essential of all chord shapes and how to connect them across the whole fretboard in all keys using the CAGED template.

Topics Covered

1. Moveable forms
2. Fingering
3. Arpeggios
4. Inversions
5. Voicings
6. Partial forms
7. Alternate bass notes
8. CAGED template
9. References to popular songs

CAGED Open Forms

There are five basic forms that are used to build chords on the guitar. In the open position, they're known as open C, open A, open G, open E, and open D. What's that spell? CAGED. The neck diagrams in the opposite column illustrate each of the five forms in their respective open position.



It's important to know where the root is located in each of these forms. If you've never given much thought to the roots in these chords, take a few moments now and study the diagrams. Generally speaking, the root is the lowest pitched note in the form and where you should begin strumming. Pay attention to which strings should not be strummed (indicated by an "X").

If you don't have much experience using these common open chords, then you need to spend time practicing. Find some beginner level songbooks that emphasize these chords and start strumming. If you're already familiar with these basic shapes, don't skip ahead. You're going to new places with these chord forms, so pay attention!

Capo

Each one of these five forms can be moved around the neck to create new chords. Before you move your fingers away from the open position, consider that *the open strings are part of the form too and must move along with everything else*. One way to accomplish this is to attach a capo on your guitar. A capo will reposition the open strings for you. If you put a capo at the first fret and play each one of these shapes, the C chord becomes a C[#] chord, the A chord becomes an A[#] chord, and so on.

Barre

If you want to move the C shape around the fretboard to play a progression, you need to reposition the capo in between changes. Of course, that poses a problem. The solution is to use your index finger as a capo by "barring" across the fretboard. Then build the chord with your remaining fingers. Each one of the CAGED open forms can be transformed into a barre chord and moved around the fretboard.

"C Form" Barre Chord

The diagrams on the next page illustrate how to transform the common open C chord into a moveable "C form" barre chord. When you do this, the root lies beneath your pinky finger on the fifth string. For our purposes now, the sixth string should be skipped or muted. You can play different major chords along the fifth string by sliding this form around.

When you move this form away from the open position it's no longer a C chord. For example, if your pinky finger is at the fifth fret, then you're actually playing a D chord. The shape is still what's thought of as a "C form" but the actual chord name depends on what's under your pinky finger.

This "C form" barre chord can be difficult and uncomfortable to play at first. Be patient. It's helpful to realize that your index finger only needs to hold down strings one and three. It's not necessary to barre completely across the fretboard. Also, you'll soon discover that this chord form is rarely played in its entirety.

Inversions and Voicings

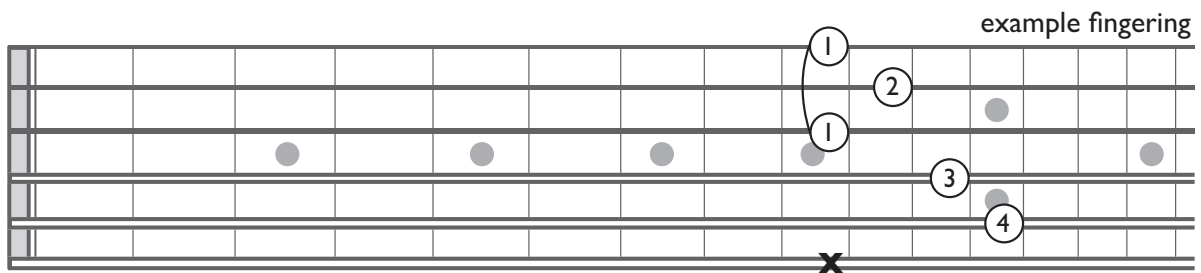
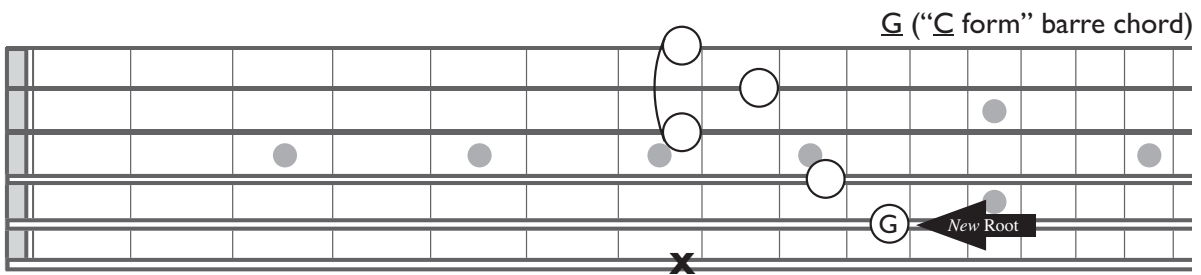
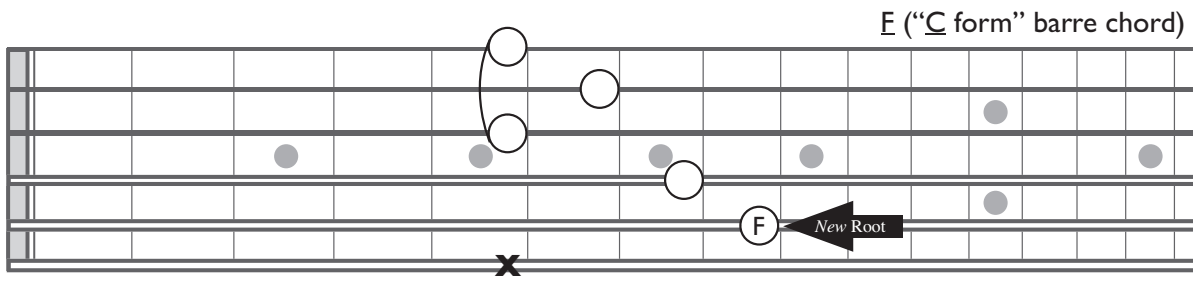
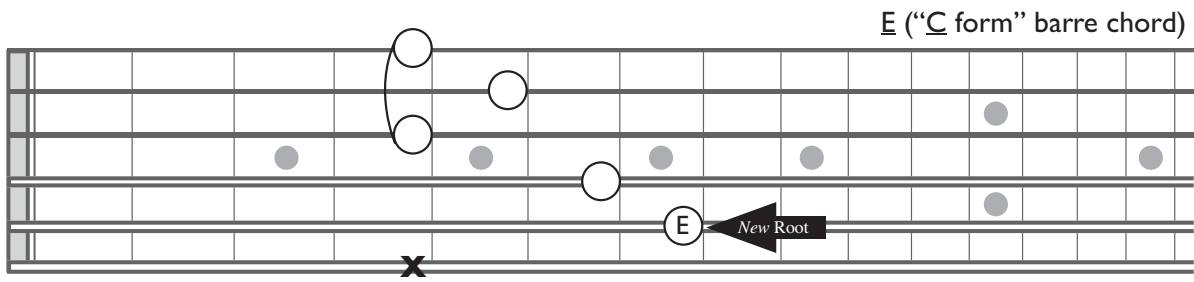
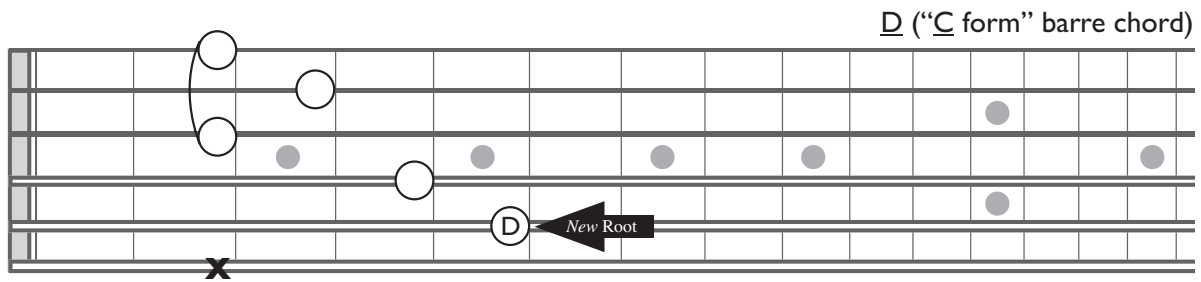
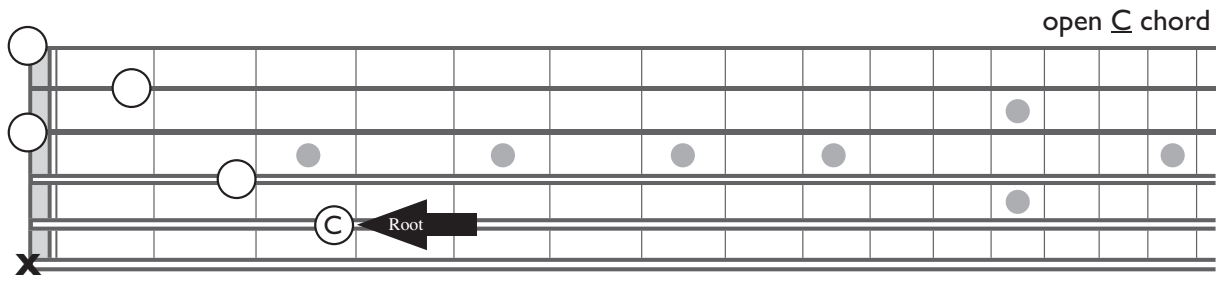
Major chords are comprised of three notes. These three notes can occur more than once and be combined in any order. An "inversion," for practical intents and purposes, is simply a rearrangement of the notes in a chord from one shape to another. The notes are inverted, get it? Although the building blocks remain the same, changing the order in which notes are combined creates a different sound or "voicing." Sometimes this is accomplished by not playing the whole chord shape.

Partial Forms

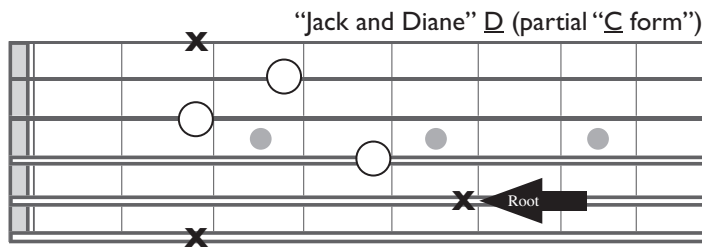
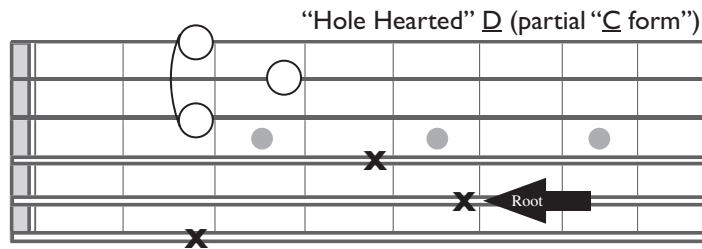
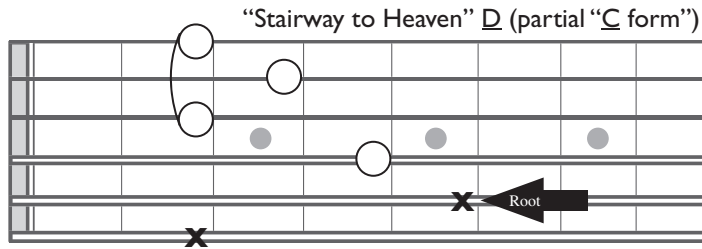
You can create different inversions and voicings by breaking a chord form up into partial forms. Oftentimes this makes a chord easy to finger and play. One way a "C form" barre chord can be simplified is to remove your pinky finger. When you do this, make sure to skip or mute the fifth string. What's left is a four-note voicing on strings one through four as used in the intro to "Stairway to Heaven" by Led Zeppelin. This is illustrated in the diagrams on page 22.

Another option is to remove your pinky and your ring finger. Again, don't forget to skip or mute both strings five and four since you've taken your fingers off of them. What's left is a three-note voicing on strings one through three that is part of the common open D chord. In the intro to "Hole Hearted" by Extreme this triangular shape is moved around to different frets. The "C form" and "D form" barre chords are closely related and share this same triangular shape on strings one through three.

“C Form” Barre Chord



Partial Forms

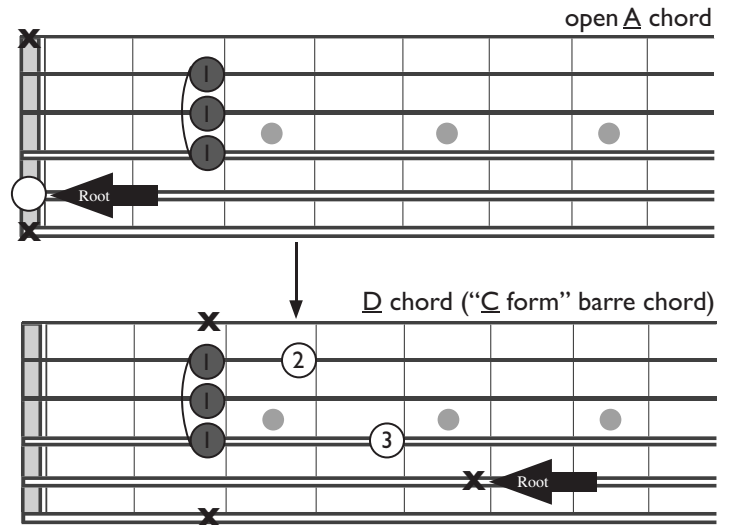


When playing partial chord shapes you can visualize the root of the parent form even when it's omitted.

The most common way to play the " \underline{C} form" barre chord is to omit the pinky finger on string five and the index finger on string one. When you do this, skip or mute the omitted strings. What's left is a three-note voicing on strings two, three and four as used during the interlude to "Jack and Diane" by John Mellencamp.

This voicing sounds good, is easy to finger, and enables you to effortlessly access an " \underline{A} form" barre chord. If you play a common open \underline{A} chord by barring with your index finger, then it's very easy to add your middle and ring fingers to build a " \underline{C} form" of \underline{D} . By adding and taking off your middle and ring fingers you can alternate between an \underline{A} chord and a \underline{D} chord quickly and with minimal movement. This trick has become a trademark of Rolling Stones guitarist Keith Richards. You'll get plenty of exposure to this technique as many of the song examples coming up use a partial " \underline{C} form" in this way.

"Keith Richards" Trick



Alternate Bass Notes

There are a few more voicings you'll want to learn before moving on but you'll need to consider the notes that make up a \underline{C} major chord. They're \underline{C} , \underline{E} and \underline{G} . When you play a common open \underline{C} chord you probably always put the root \underline{C} in the bass (lowest position), but you could use another note from the chord. You can add an alternate bass note by including the open sixth string \underline{E} or the \underline{G} at the third fret.

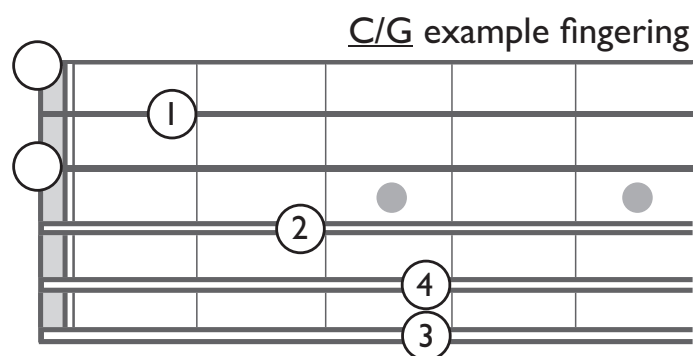
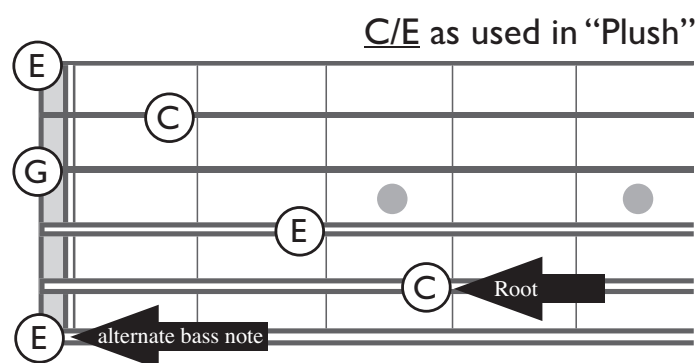
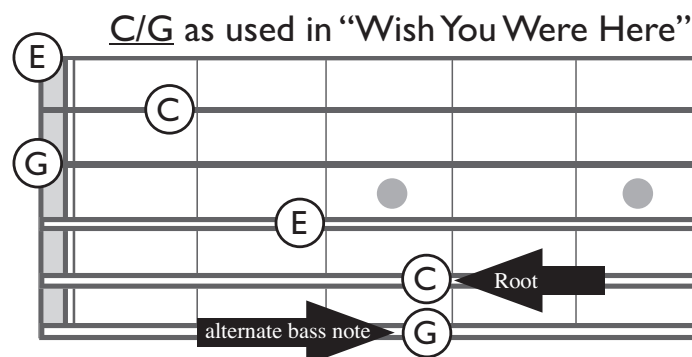
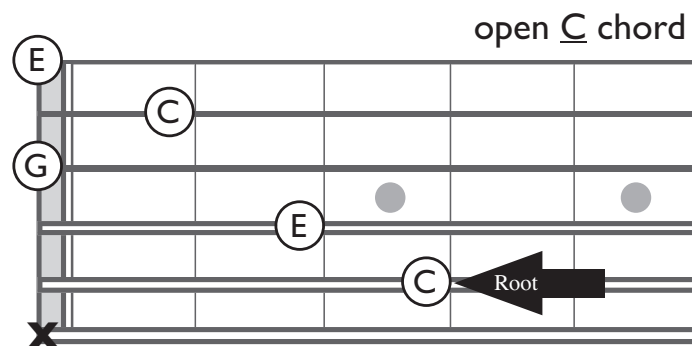
You can add the open low \underline{E} string to the \underline{C} chord by simply strumming from string six. This shape is referred to as $\underline{C}/\underline{E}$, meaning a \underline{C} chord with an \underline{E} in the bass, and is used in the verse to "Plush" by Stone Temple Pilots. This is illustrated in the diagrams on the next page.

You'll have to rearrange your fingers in order to include a low \underline{G} in a \underline{C} chord. You can do this by moving your ring finger over to the low \underline{G} and your pinky finger can take over the root \underline{C} . This shape is referred to as $\underline{C}/\underline{G}$, which means a \underline{C} chord with a \underline{G} in the bass. Pink Floyd uses the $\underline{C}/\underline{G}$ in the verse to "Wish You Were Here."

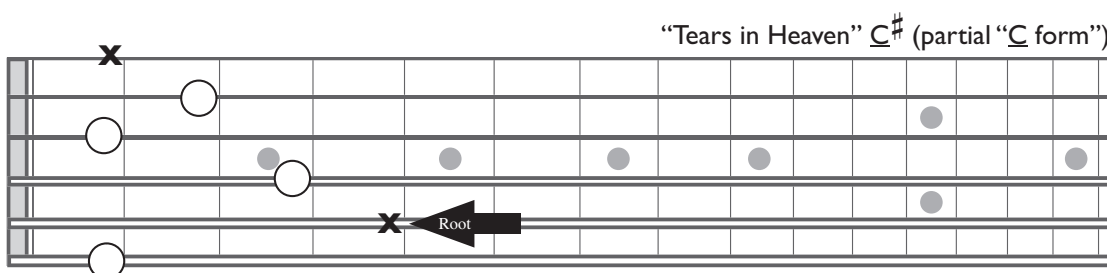
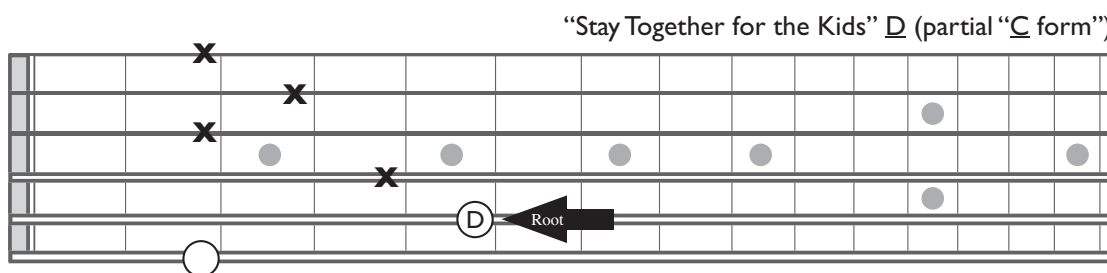
Slashes

Any time there's a note other than the root in the lowest position, technically it should be indicated by using a slash. In order to simplify things, most of the slashes have been left out of this chapter. At this stage it's more important to visualize how chord shapes are derived from the CAGED forms. Don't worry about the notes.

Alternate Bass Notes



The diagrams below apply the alternate bass note options of the “C form” in new positions. In these examples you’re not only using alternate bass notes but you’re also reducing the chords to partial forms that have unique shapes and sounds. It’s important to visualize the rest of the barre chord when playing these odd shapes. Doing so will help you to realize that the odd shapes are simply part of a bigger common form. The chord used in “Stay Together for the Kids” by Blink 182 is derived from the “C form” but is actually a D (D/F# to be more specific). The chord used in “Tears in Heaven” by Eric Clapton is also derived from the “C form” but is actually a C# (C#/E# to be more specific). Even if you omit the root, you should still visualize it in order to know what you’re playing.



Arpeggio

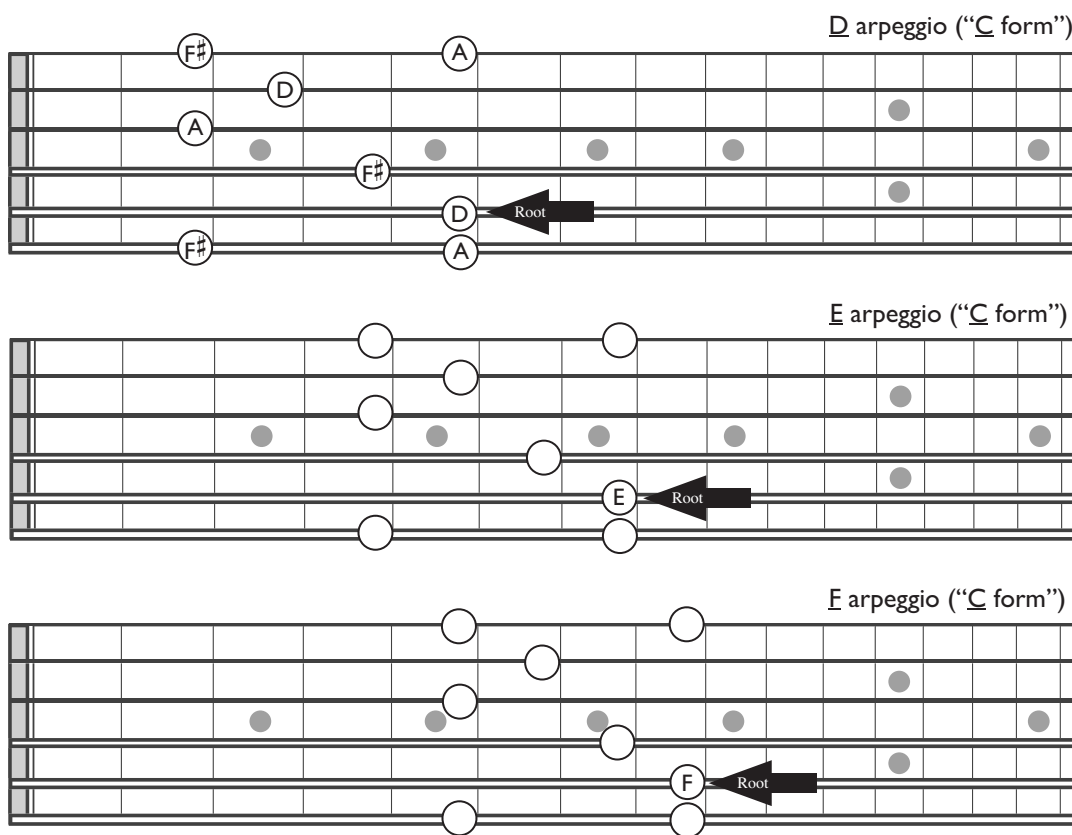
Arpeggios are the notes of chords laid out and played in series like a scale. For example, the notes that make up a D major chord are D, F[#], and A. When you combine these notes to play a chord it's not always possible to stack the notes in this order. Because you must play the notes simultaneously, you can't always include all of the available notes in a given position since sometimes more than one note is available on the same string.

When playing an arpeggio, you can play all the notes in order, one at a time as a scale including notes that may be on the same string. Arpeggios are very useful for building chords, creating interesting chord voicings, and constructing bass lines because you can map out all the notes of a chord in a given position and then grab them anyway you can.

Three notes need to be added in order to complete a "C form" arpeggio pattern. The diagrams below illustrate this pattern revolving around D at the fifth fret on string five, E at the seventh fret of string five, and F at the eighth fret of string five. You don't need to know the notes at this stage. Focus on the pattern. If you're curious, each note is shown in one example. Use the notation examples on the next page if you're confused about how to play through these patterns.

This arpeggio pattern goes together with the "C form" barre chord. The barre chord is just one way the notes can be played together, but there are other possibilities. Take a moment and practice playing through this arpeggio pattern until you have it memorized. By duplicating this pattern at other frets you can play major chord arpeggios for other notes along the fifth string. Once you're comfortable with the pattern, you can experiment with using it to build different chord shapes, voicings and even melodies, riffs and bass lines.

"C form" Arpeggio Pattern



"C form" Arpeggio Pattern

D major arpeggio ("C form")

Gtr.

TAB

2 5 5 4 2 3 2 5 5 2 3 2 4 5 5 2

root

Bass

TAB

2 5 5 4 2 2 4 5 5 2

root

5 E major arpeggio ("C form")

TAB

4 7 7 6 4 5 4 7 7 4 5 4 6 7 7 4

root

Bass

TAB

4 7 7 6 4 4 4 6 7 7 4

root

9 F major arpeggio ("C form")

TAB

5 8 8 7 5 6 5 8 8 5 6 5 7 8 8 5

root

Bass

TAB

5 8 8 7 5 5 5 7 8 8 5

root

Here are few final “C form” examples derived from the arpeggio pattern. “Take it Easy” by The Eagles uses an alternate bass note on string six along with an extra note on top. You’ll have to use your fingers to pick “Cliffs of Dover” by Eric Johnson as it uses non-adjacent chord tones. This voicing is actually just a power chord.



Songs

Below is a list of tunes to help you start using the “C form” barre chord. As you work through this list you can expect to find other chord forms mixed in too. These other forms are presented throughout the rest of this chapter (and minor chord forms in the next). You don’t have to learn a song in its entirety. Just focus on the part that uses the “C form.”

“C Form” Barre Chord

“Take It Easy” The Eagles.....	Gtr. Intro
“Stairway to Heaven” Led Zeppelin.....	Gtr. Intro
“Snow (Hey Oh)” Red Hot Chili Peppers.....	Gtr. Intro 2nd & 4th Chord Shapes
“Sample in a Jar” Phish.....	Gtr. Intro
“Down Boys” Warrant.....	Gtr. Intro
“Free Ride” Edgar Winter Group.....	Gtr. Intro, Verse
“Let It Ride” Bachman-Turner Overdrive.....	Gtr. Intro/Verse
“You Ain’t Seen Nothin’ Yet” Bachman-Turner Overdrive.....	Gtr. Intro/Verse
“Funk 49” The James Gang.....	Gtr. Intro/Verse
“Domino” Van Morrison.....	Gtr. Intro/Verse
“All Right Now” Free.....	Gtr. Intro/Verse
“Firehouse” Kiss.....	Gtr. Intro, Verse/Chorus
“What I Like About You” The Romantics.....	Gtr. Intro, Verse/Chorus
“Jack and Diane” John Mellencamp.....	Gtr. Intro, Interlude
“Change the World” Eric Clapton.....	Gtr. Verse
“Crazy Train” Ozzy Osbourne.....	Gtr. Verse
“Plush” Stone Temple Pilots.....	Gtr. Verse
“Rock This Town” Stray Cats.....	Gtr. Verse 0:49
“In Too Deep” Sum 41.....	Gtr. 3 Verse
“In and Out of Love” Bon Jovi.....	Gtr. Verse, Bridge
“Wait” White Lion.....	Gtr. Verse, Interlude
“I’m Bad, I’m Nationwide” ZZ Top.....	Gtr. Chorus
“Stay Together for the Kids” Blink 182.....	Gtr. Chorus
“Cult of Personality” Living Colour.....	Gtr. Bridge
“316” Van Halen.....	Gtr. Throughout
“Flirtin’ With Disaster” Molly Hatchet.....	Gtr. Chorus 0:50
“Start Me Up” The Rolling Stones.....	Open-G tuning, Gtr.
“Honky Tonk Woman” The Rolling Stones.....	Open-G tuning, Gtr.
“Brown Sugar” The Rolling Stones.....	Open-G tuning, Gtr.

“A Form” Barre Chord

The diagrams on the next page illustrate how to transform the common open A chord into a moveable “A form” barre chord. This form is very common and it’s usually to what people refer when mentioning barre chords. With this form, the root lies beneath your index finger on the fifth string. Your ring finger can create a barre of its own to build the rest of the chord. Slide this form around the neck and play major chords at any fret.

With this shape it becomes difficult to play the note on the first string because your ring finger gets in the way. That’s why most guitarists frequently omit the first string. If you do this, your index finger needs only to hold down string five. In most practical applications you won’t need to hear the first string but if you do, then you may need to barre and then build the rest of the chord with separate fingers.

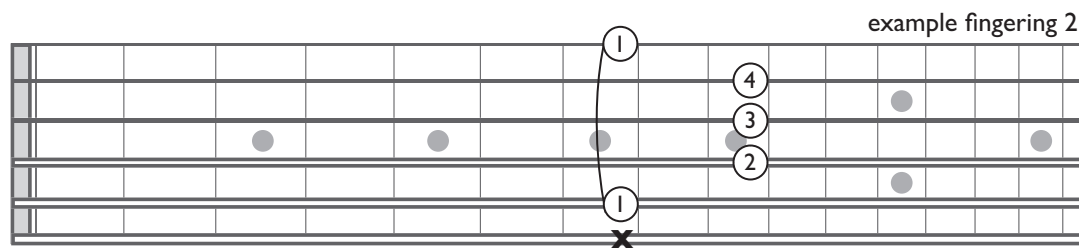
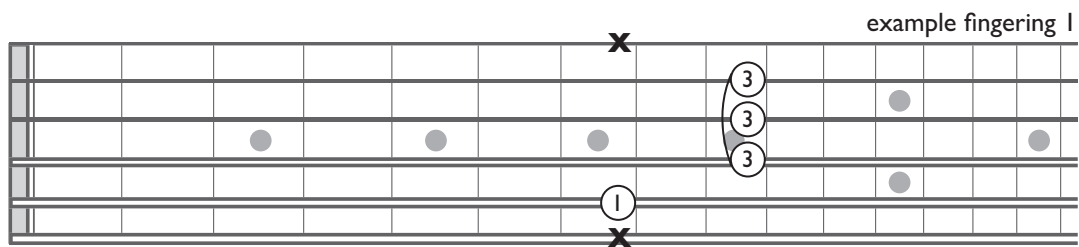
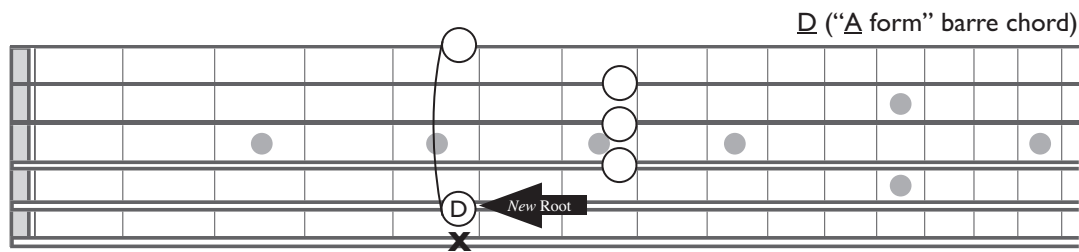
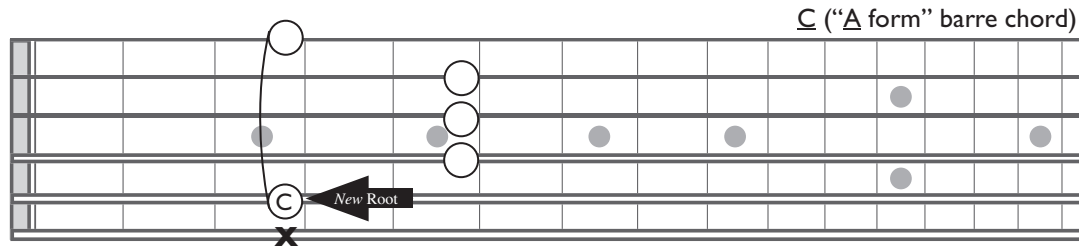
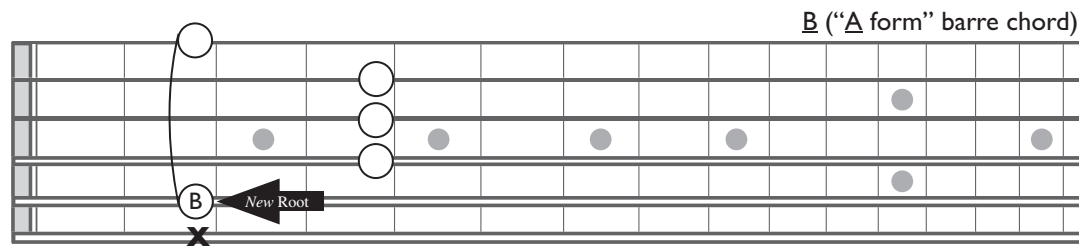
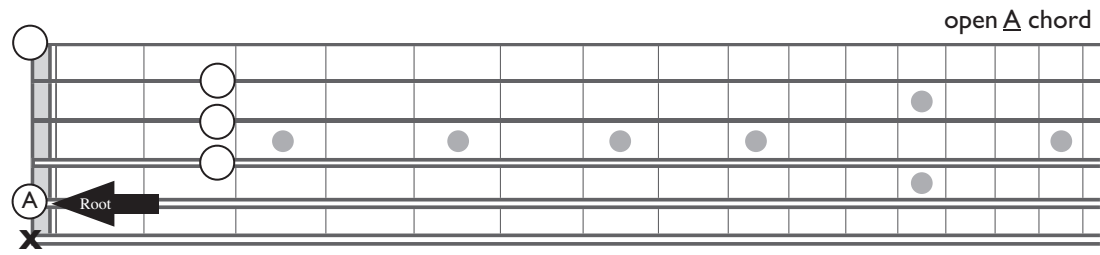
Partial Forms

Like the previous “C form”, the “A form” can also be broken up into partial forms as illustrated on page 28. Try fingering and playing just strings one through three as done in the interlude to “Stairway to Heaven” by Led Zeppelin. Next try strings two through four as done in the bridge to “Cult of Personality” by Living Colour. Finally, try playing only strings five, four, and three (or just five and four) which leaves you with a power chord shape as used in nearly every hard rock song ever recorded.

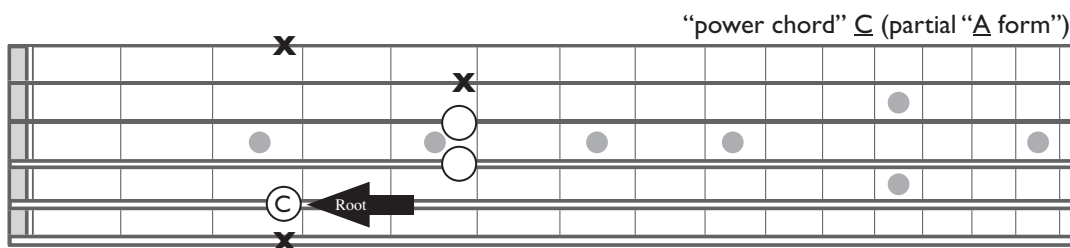
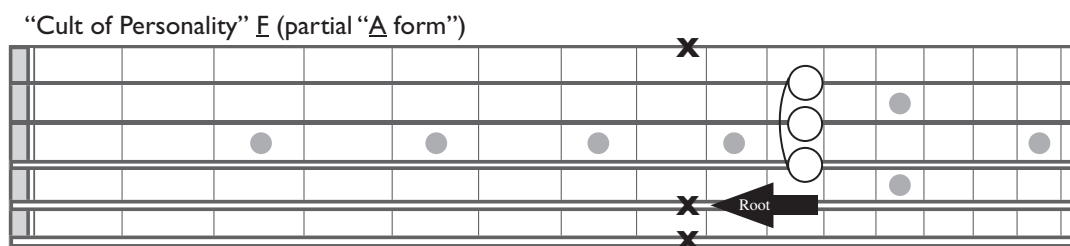
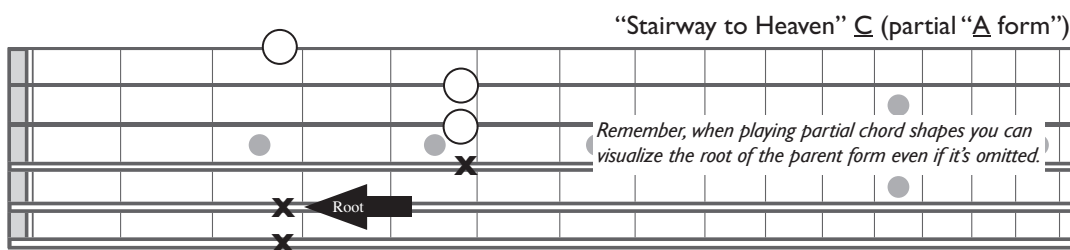
Arpeggio

Two notes need to be added in order to complete the “A form” arpeggio pattern. This pattern is illustrated and notated revolving around C at the third fret of string five, D at the fifth fret, and E at the seventh fret. You don’t need to know the notes at this stage. Focus on the pattern. If you’re curious, each note is shown in one example. This arpeggio pattern goes together with the “A form” barre chord. The barre chord is just one way the notes can be played together, but there are other possibilities. Take a moment and practice playing through this arpeggio pattern until you have it memorized. By duplicating this pattern at other frets you can play major chord arpeggios for other notes along the fifth string. Once you’re comfortable with the pattern, you can experiment with using it for shapes, voicings, melodies, riffs and bass lines.

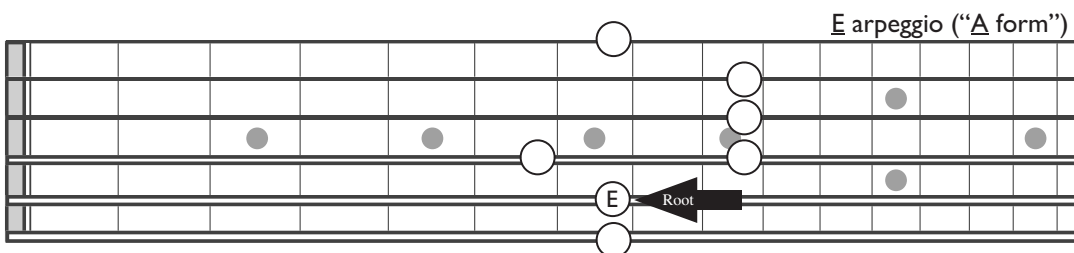
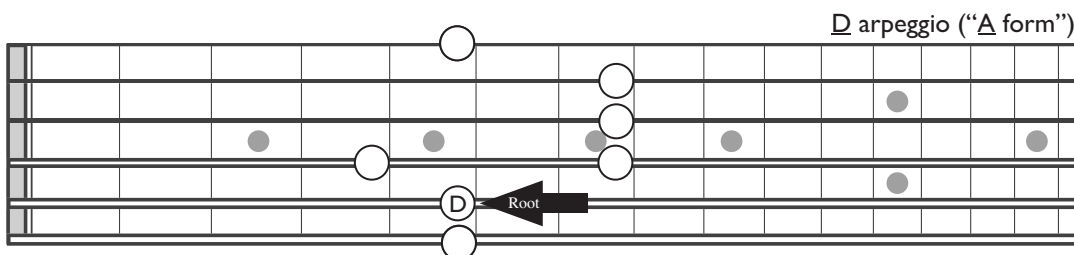
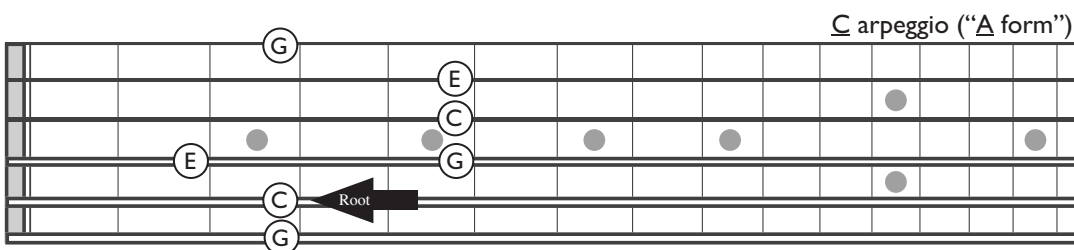
“A form” Barre Chord



“A form” Partial Forms



“A form” Arpeggio Pattern



"A form" Arpeggio Pattern

C major arpeggio ("A form")

Gtr. Bass

3 3 2 5 5 3 3 5 5 2 3 3

3 root

3 root

5 D major arpeggio ("A form")

5 5 4 7 7 5 7 7 4 5 5

5 root

5 root

9 E major arpeggio ("A form")

7 7 6 9 9 7 9 9 6 7 7

7 root

7 root

More Shapes and Voicings

Notice that there are a few extra notes in the “A form” arpeggio pattern that weren’t used for the common barre chord. You can use these notes to build different shapes and voicings. Jimi Hendrix used the note on string six to create the power chord voicing used during the intro to “The Wind Cries Mary.” John Mayer used the note on string four during the intro and verse to “Daughters.” Kiss used the note on string four to create the voicing used during the intro and verses to “Cold Gin.” Try picking non-adjacent chord tones as is done in “Scar Tissue” by Red Hot Chili Peppers.

“The Wind Cries Mary” E^5 (partial “A form”)

“Daughters” D (partial “A form”)

“Cold Gin” D (partial “A form”)

“Scar Tissue” E (partial “A form”)

Songs

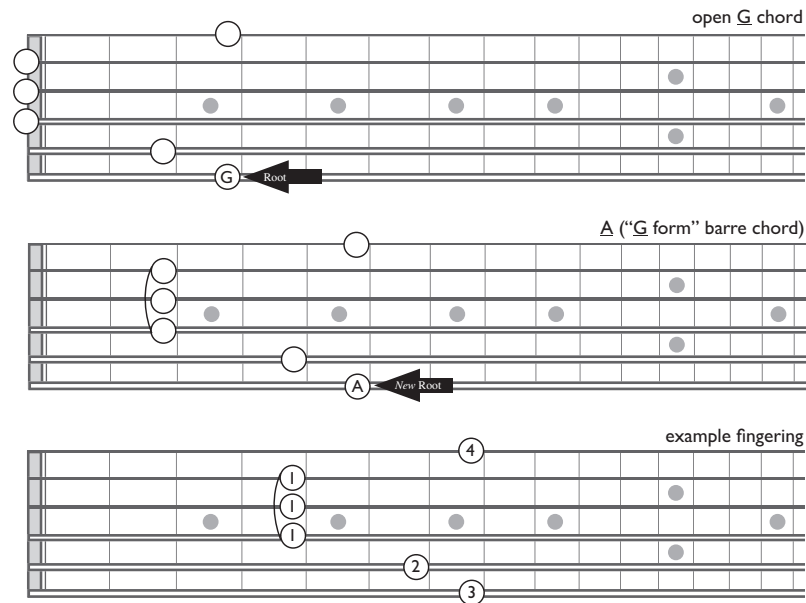
When used in its entirety, the “A form” barre chord is one of the most widely used chord forms in guitar-oriented music. You don’t need any examples of its usage as a complete barre chord. Instead, the following songs make good use of the partial forms. Remember that there may be other chord forms mixed in too. You don’t have to learn a song in its entirety. Just focus on the part that uses the “A form.”

“A Form” Barre Chord

“Wait” White Lion.....	Gtr. Intro
“Nothing Else Matters” Metallica.....	Gtr. Intro
“All Star” Smash Mouth.....	Gtr. Intro/Verse
“Daughters” John Mayer.....	Gtr. Intro/Verse
“Cold Gin” Kiss.....	Gtr. Intro/Verse
“Scar Tissue” Red Hot Chili Peppers.....	Gtr. Intro/Verse
“Let It Ride” Bachman-Turner Overdrive.....	Gtr. Intro/Chorus
“Jack and Diane” John Mellencamp.....	Gtr. Intro, Interlude
“All the Small Things” Blink 182.....	Gtr. Interlude 2
“(Bang Your Head) Metal Health” Quiet Riot.....	Gtr. Verse
“In and Out of Love” Bon Jovi.....	Gtr. Verse
“Cult of Personality” Living Colour.....	Gtr. Bridge
“Stairway to Heaven” Led Zeppelin.....	Gtr. Interlude
“Start Me Up” The Rolling Stones.....	Open-G Tuning, Gtr.
“Honky Tonk Woman” The Rolling Stones.....	Open-G Tuning, Gtr.
“Brown Sugar” The Rolling Stones.....	Open-G Tuning, Gtr.
“Butterfly” Crazytown.....	Bass

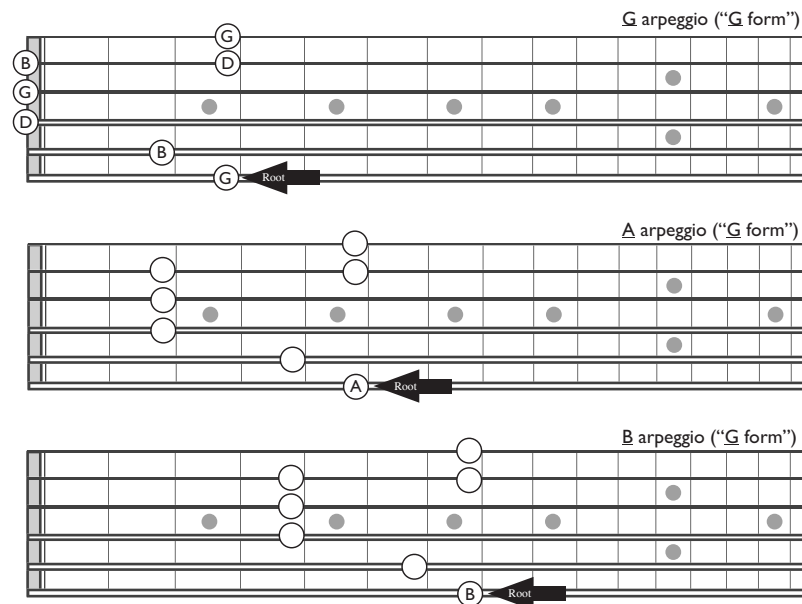
“G Form” Barre Chord

When playing a “G form” barre chord the root lies beneath your ring finger on string six. Your index finger only needs to hold down strings two, three, and four rather than barre across the whole fretboard. This form is quite a stretch and is rarely, if ever, used in its entirety.



Arpeggio

Only one note needs to be added in order to complete the “G form” arpeggio pattern. This pattern is illustrated and notated first in the open position, then revolving around **A** at the fifth fret of string six and **B** at the seventh fret. This arpeggio pattern goes together with the “G form” barre chord. The barre chord is just one way the notes can be played together, but there are other possibilities. Take a moment and practice playing through this arpeggio pattern until you have it memorized. By duplicating this pattern at other frets you can play major chord arpeggios for other notes along the sixth string. Once you’re comfortable with the pattern, you can experiment with using it for shapes, voicings, melodies, riffs and bass lines.



"G form" Arpeggio Pattern

G major arpeggio ("G form")

Gtr.

Bass

3 root

5 A major arpeggio ("G form")

Gtr.

Bass

5 root

9 B major arpeggio ("G form")

Gtr.

Bass

7 root

Shapes and Voicings

The most common application of this form omits both the high and low E strings, which leaves strings two through five. Jimi Hendrix used this voicing during the intro to “The Wind Cries Mary.” This shape is often done in the open position as a G/B like “Landslide” by Fleetwood Mac. Metallica used a shape that includes the root on string six in “Fade to Black.” The intro to “Stairway to Heaven” by Led Zeppelin uses the first four strings of the “G form.”

“The Wind Cries Mary” E (partial “G form”)

“Landslide” G/B (partial “G form”)

“Fade to Black” A (partial “G form”)

“Stairway to Heaven” C (partial “G form”)

A few more things about the “G form,” have you ever wondered why you can play a G chord in the open position with either the second string open or the second string at the third fret and regardless of which note it’s still a plain G chord? It’s because both notes are part of a G major chord and the arpeggio pattern shows you this. You can also reduce a “G form” down to strings two, three, and four which makes a shape that is also part of the “A form.”

Songs

The following song examples make good use of partial “G form” chords. Remember that there may be other chord forms mixed in too. You don’t have to learn a song in its entirety. Just focus on the part that uses the “G form.”

“G Form” Barre Chord

“Stairway to Heaven” Led Zeppelin.....	<i>Gtr. Intro</i>
“Gimme Three Steps” Lynyrd Skynyrd.....	<i>Gtr. Intro</i>
“Free Ride” Edgar Winter Group.....	<i>Gtr. Intro</i>
“Fade to Black” Metallica.....	<i>Gtr. Intro</i>
“China Grove” The Doobie Brothers.....	<i>Gtr. Intro 0:04</i>
“Snow (Hey Oh)” Red Hot Chili Peppers.....	<i>Gtr. Intro 3rd Chord Shape</i>
“All Right Now” Free.....	<i>Gtr. Intro/Verse</i>
“The Wind Cries Mary” Jimi Hendrix.....	<i>Gtr. Intro, Verse</i>
“I’m Bad, I’m Nationwide” ZZ Top.....	<i>Gtr. Chorus</i>
“Alive” P.O.D.....	<i>Gtr. 2 Intro, Verse, Chorus</i>
“Hit Me with Your Best Shot” Pat Benatar.....	<i>Gtr. Verse</i>
“Jimmy Olsen’s Blues” Spin Doctors.....	<i>Gtr. Verse Riff B</i>
“Blackbird” The Beatles.....	<i>Open-Position</i>
“Tears in Heaven” Eric Clapton.....	<i>Open-Position</i>
“Dust in the Wind” Kansas.....	<i>Open-Position</i>
“Landslide” Fleetwood Mac.....	<i>Open-Position</i>

“E Form” Barre Chord

This form is very common and, along with the “A form,” it’s usually to what people refer when mentioning barre chords. This form is illustrated for you on the next page. You’ll definitely need to barre across the entire fretboard to complete this form. The root lies beneath your index finger on string six. Use this shape to play major chords along the sixth string.

Partial Forms

As illustrated on the next page, the “E form” barre chord is frequently broken up to make smaller shapes, the most common of which is the basic F chord. Most players learn the F chord around the same time they learn the basic open chords. It’s actually just the first four strings of an “E form” barre chord at the first fret. This partial form is used all over the fretboard. “Gloria” by Van Morrison uses this shape minus the fourth string. Other partial forms derived from the “E form” barre chord are found in “Johnny B. Goode” by Chuck Berry and “Tripping Billies” by Dave Matthews Band. “Tripping Billies” uses non-adjacent chord tones and it takes a special kind of finesse to mute the omitted strings while strumming.

Arpeggio

As illustrate on page 36, only one note needs to be added in order to complete the “E form” arpeggio pattern. This pattern is illustrated and notated revolving around G at the third fret of string six, A at the fifth fret, and B at the seventh fret. You don’t need to know the notes at this stage. Focus on the pattern. If you’re curious, each note is shown in one example. This arpeggio pattern goes together with the “E form” barre chord. The barre chord is just one way the notes can be played together, but there are other possibilities. Take a moment and practice playing through this arpeggio pattern until you have it memorized. By duplicating this pattern at other frets you can play major chord arpeggios for other notes along the sixth string. Once you’re comfortable with the pattern, you can experiment with using it for shapes, voicings, melodies, riffs and bass lines.

“E form” Barre Chord

open E chord

E (“E form” barre chord)

example fingering

Partial Forms

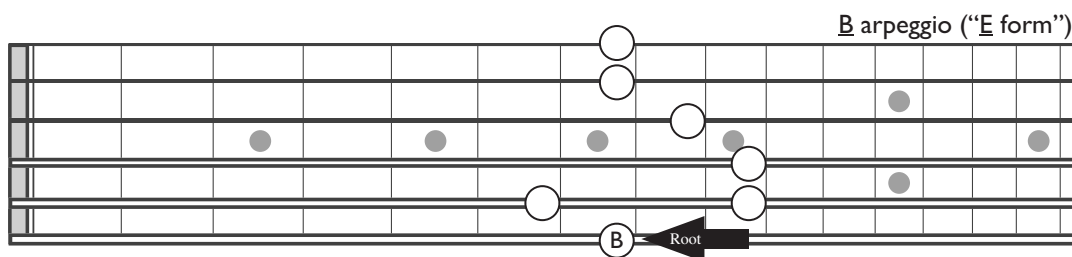
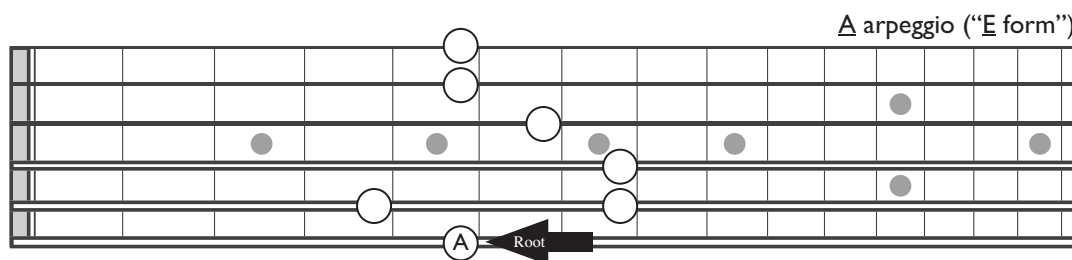
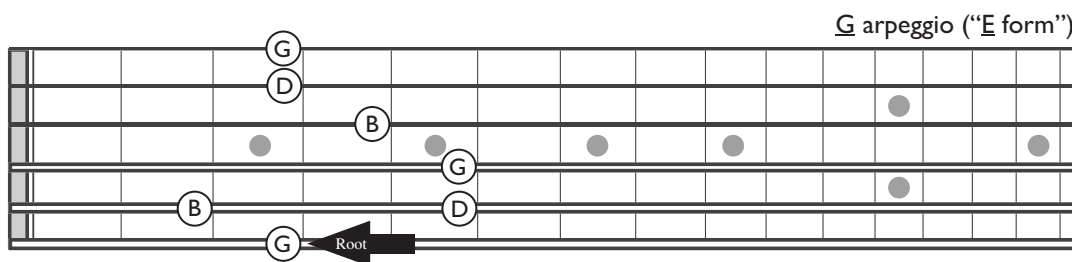
E (partial “E form”)

“Gloria” E (partial “E form”)

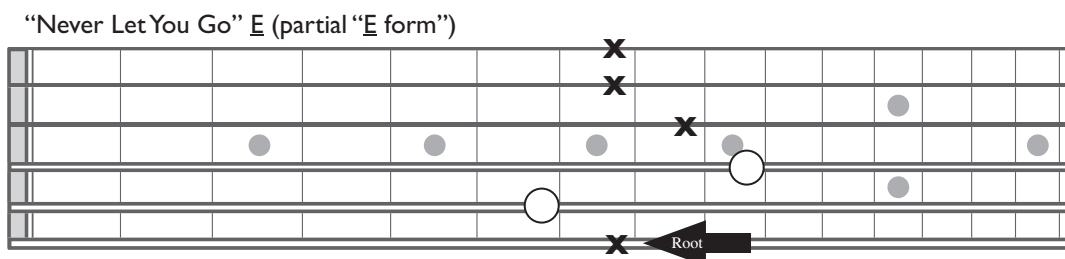
“Johnny B. Goode” B^b (partial “E form”)

“Tripping Billies” G (partial “E form”)

“E form” Arpeggio Patterns



Partial Form



"E form" Arpeggio Pattern

G major arpeggio ("E form")

Gtr. 4/4

TAB

Bass 4/4

TAB

3 root

3 2 5 5 4 3 3 3 4 5 5 2 3

5 A major arpeggio ("E form")

5

TAB

Bass 4/4

TAB

5 root

5 4 7 7 6 5 5 5 6 7 7 4 5

9 B major arpeggio ("E form")

9

TAB

Bass 4/4

TAB

7 root

7 6 9 9 8 7 7 7 8 9 9 6 7

More About Shapes and Voicings

Like the “A form”, the “E form” can be reduced to a power chord as well. In addition, the arpeggio illustrates that there’s an extra note to factor into your chord voicings. You see this in the bridge to “Never Let You Go” by Third Eye Blind as illustrated back on page 36.

Jimi Hendrix played his “E form” barre chord by fretting strings one through four with his index, middle and ring fingers, thereby muting the fifth string and grabbing the sixth string with his thumb. His innovative technique influenced the rest of the guitar world to adopt this once unconventional fingering.

Songs

The following songs make good use of partial “E form” voicings. Remember that there may be other chord forms mixed in too. You don’t have to learn a song in its entirety. Just focus on the part that uses the “E form.”

“E Form” Barre Chord

“The Impression That I Get” The Mighty Mighty Bosstones.....	Gtr. Intro
“Sample in a Jar” Phish.....	Gtr. Intro
“Eye of the Tiger” Survivor.....	Gtr. Intro
“Wait” White Lion.....	Gtr. Intro
“Down Boys” Warrant.....	Gtr. Intro
“Jimmy Olsen’s Blues” Spin Doctors.....	Gtr. Intro/Verse
“Caught Up in You” 38 Special.....	Gtr. Intro/Verse
“Jack and Diane” John Mellencamp.....	Gtr. Intro, Verse
“All Star” Smash Mouth.....	Gtr. Intro/Verse
“Domino” Van Morrison.....	Gtr. Intro/Verse
“Let It Ride” Bachman-Turner Overdrive.....	Gtr. Intro/Chorus
“Scar Tissue” Red Hot Chili Peppers.....	Gtr. Intro/Chorus
“Days of the Week” Stone Temple Pilots.....	Gtr. Verse
“Interstate Love Song” Stone Temple Pilots.....	Gtr. Verse
“Santeria” Sublime.....	Gtr. Verse, Chorus
“Under the Bridge” Red Hot Chili Peppers.....	Gtr. Verse, Bridge
“Another Brick in the Wall (Part II)” Pink Floyd.....	Gtr. Chorus
“The Rock Show” Blink 182.....	Gtr. Chorus
“Cult of Personality” Living Colour.....	Gtr. Bridge
“Never Let You Go” Third Eye Blind.....	Gtr. Bridge
“Gloria” Van Morrison/Them.....	Gtr. Interlude
“Tomorrow” Silver Chair.....	Gtr. Interlude
“Life’s Been Good” Joe Walsh.....	Acous. Gtr.
“Burning Love” Elvis Presley.....	Gtr. Throughout
“Good Lovin’” The Young Rascals.....	Gtr. Throughout
“Soul Man” Sam & Dave.....	Gtr. Throughout
“Tripping Billies” Dave Matthews Band.....	Gtr. Throughout
“Two Step” Dave Matthews Band.....	Gtr. Throughout
“Lover Lay Down” Dave Matthews Band.....	Gtr. Throughout
“Grey Street” Dave Matthews Band.....	Gtr. Throughout
“Wrong Way” Sublime.....	Gtr. Throughout
“Butterfly” Crazytown.....	Bass

“D Form” Barre Chord

This final form is slightly modified so that you can get more from it. Instead of simply playing an open D chord, play a D/F# chord which includes an alternate bass note on string six. This shape is illustrated with a few fingering examples on the next page (the “T” represents your thumb). This open D voicing is fairly common and is found in all the acoustic song examples coming up.

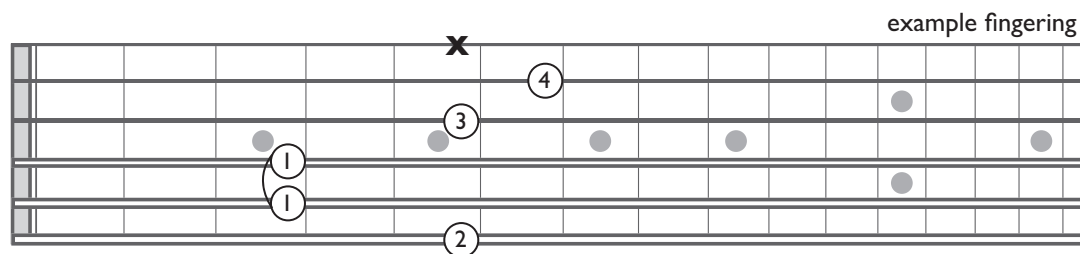
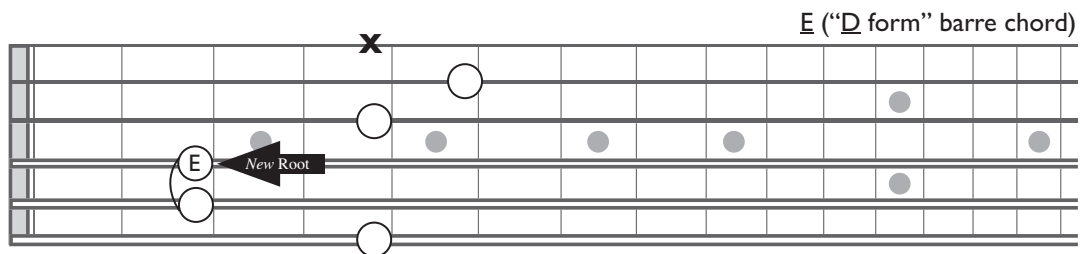
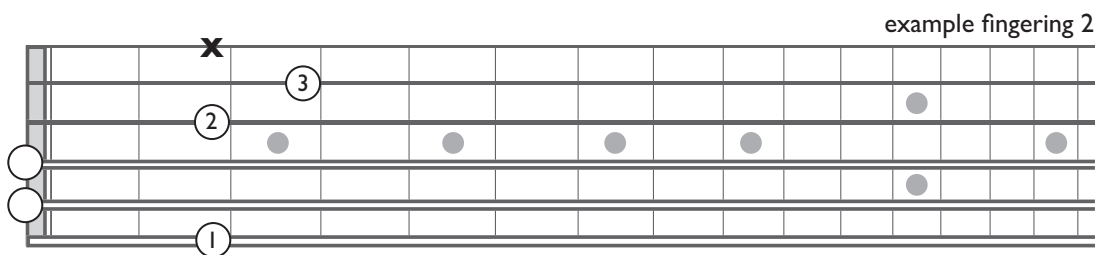
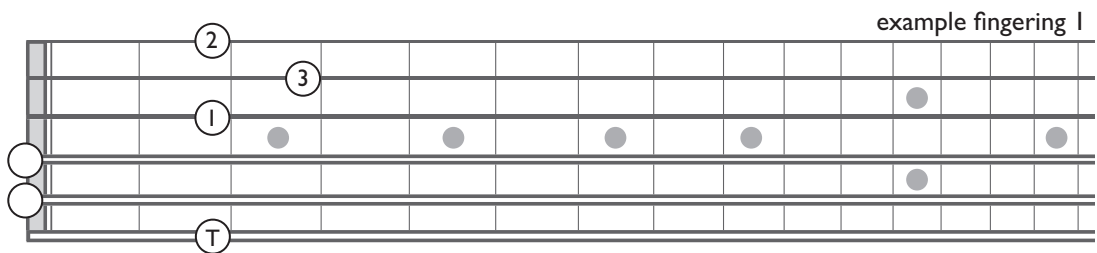
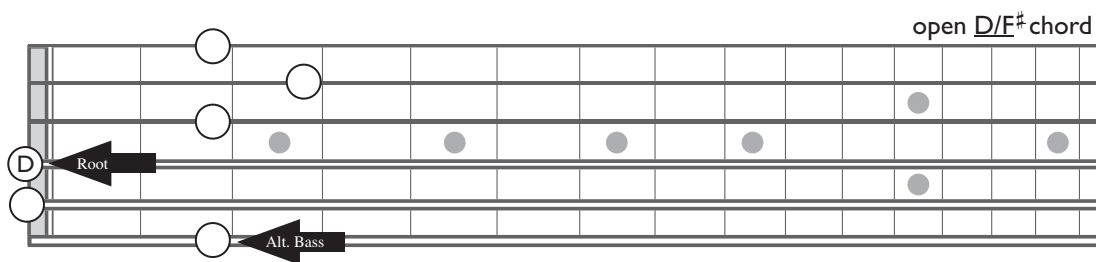
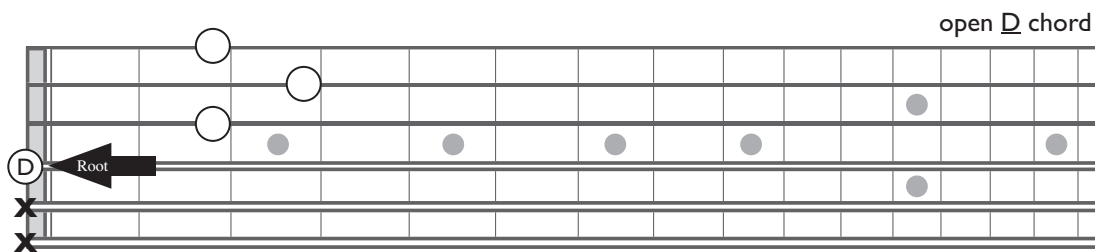
As seen in the diagrams, moving this shape away from the open position creates a barre chord which is very unique and probably quite unlike any chord you’ve played before. The root lies under your index finger on string four. If you don’t know the notes on string four that well, then you can use the octave system to visually trace the root from string four to string six where you probably know the notes better.

There are two songs that actually use this barre chord in it’s entirety. “Crash into Me” by Dave Matthews Band and “Spirit of Radio” by Rush both use an E/G# with your index finger at the second fret of string four.

Arpeggio

As shown on page 40, only one note needs to be added in order to complete the “D form” arpeggio pattern. This pattern is illustrated and notated revolving around E at the second fret of string four, F at the third fret, and G at the fifth fret. You don’t need to know the notes at this stage. Focus on the pattern. If you’re curious, each note is shown in one example. This arpeggio pattern goes together with the “D form” barre chord. The barre chord is just one way the notes can be played together, but there are other possibilities. Take a moment and practice playing through this arpeggio pattern until you’ve committed it to memory. By duplicating this pattern at other frets you can play major chord arpeggios for other notes along the fourth string. Once you’re comfortable with the pattern, you can create different chord shapes and voicings by using partial forms.

D/F# and “D form” Barre Chord



“D form” Arpeggio Patterns

E arpeggio (“D form”)

E arpeggio (“D form”)

G arpeggio (“D form”)

Partial Forms

“All the Small Things” E (partial “D form”)

“Jack and Diane” E (partial “D form”)

“Tears in Heaven” E partial “D form”

"D form" Arpeggio Pattern

E major arpeggio ("D form")

Gtr.

4/4

4 2 1 4 5 4 4 5 4 1 2 2 4

root

Bass

4/4

4 2 2 1 4 4 1 2 2 4

root

5 F major arpeggio ("D form")

4/4

5 3 3 2 5 6 5 5 6 5 2 3 3 5

root

Bass

4/4

5 3 3 2 5 5 2 3 3 5

root

9 G major arpeggio ("D form")

4/4

7 5 5 4 7 8 7 7 8 7 4 5 5 7

root

Bass

4/4

7 5 5 4 7 7 4 5 5 7

root

Partial Forms

With the exception of the open position, you're more likely to come across this form with both the high and low E strings omitted as done in the intro to "All the Small Things" by Blink 182. This partial form is technically not a full major chord but rather a power chord because it doesn't include the note that makes it major. Some of the song examples coming up use this power chord shape with the root on string four.

The "D form" has a triangular shape on strings one, two and three that is also part of the "C form." The two forms also share a note on string six. "Jack and Diane" by John Mellencamp and "Tears in Heaven" by Eric Clapton are examples that use part of the "D form" but the shapes are also part of the "C form." You can think of the shapes either way.

Songs

The following songs make good use of partial "D form" voicings. Remember that there may be other chord forms mixed in too. You don't have to learn a song in its entirety. Just focus on the part that uses the "D form."

"D Form" Barre Chord

"All the Small Things" Blink 182.....	Gtr. Intro
"Snow (Hey Oh)" Red Hot Chili Peppers.....	Gtr. Intro 8th Chord Shape
"Island in the Sun" Weezer.....	Gtr. Intro/Verse
"Babe I'm Gonna Leave You" Led Zeppelin.....	Gtr. Intro/Verse
"Hole Hearted" Extreme.....	Gtr. Intro, Pre-Chorus
"Wish You Were Here" Pink Floyd.....	Gtr. Verse
"Jack and Diane" John Mellencamp.....	Gtr. Verse
"Dust in the Wind" Kansas.....	Gtr. Chorus
"Landslide" Fleetwood Mac.....	Gtr. Chorus
"Caught Up in You" 38 Special.....	Gtr. Chorus
"Never Let You Go" Third Eye Blind.....	Gtr. Chorus
"Another Brick in the Wall (Part II)" Pink Floyd.....	Gtr. Chorus
"Change the World" Eric Clapton.....	Gtr. Chorus
"Gloria" Van Morrison/Them.....	Gtr. Interlude
"Crash into Me" Dave Matthews Band.....	Gtr. Throughout
"Tears in Heaven" Eric Clapton.....	Gtr. Throughout

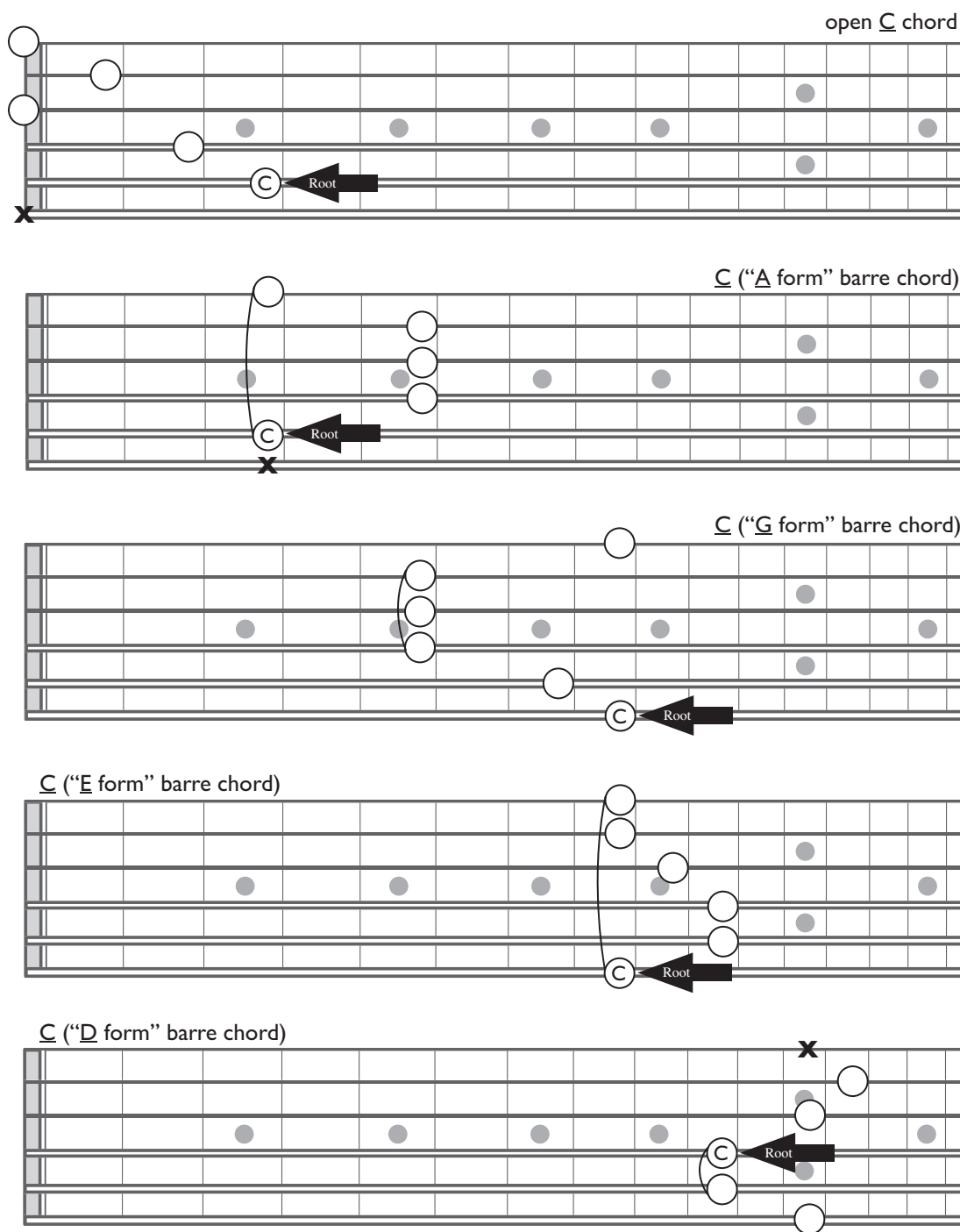
CAGED Template

Now that you've learned the five major chord forms and their arpeggio patterns you're ready to connect them and build the CAGED template. The template will enable you to play any major chord across the entire fretboard.

1. In the group of diagrams on the next page the template starts on an open C chord ("C form") and uses the remaining forms to build C major chords across the whole fretboard. Normally the root of the "C form" barre chord is under your pinky but since you're starting in the open position it's under your ring finger.
2. You can move to the next form in the template by replacing your ring finger with your index finger and playing an "A form" barre chord. Remember, this is still a C chord.
3. To move to the next position, or the next form, replace your ring finger with your index finger and build a "G form" barre chord. If you did this correctly, then your ring finger should be holding down the root C on string six.
4. Replace your ring finger with your index finger to play an "E form" barre chord.
5. Move your index finger from C on string six to C an octave higher on string four to play a "D form" barre chord.
6. Replace your ring and pinky fingers with your index and middle fingers to play a "C form" barre chord.

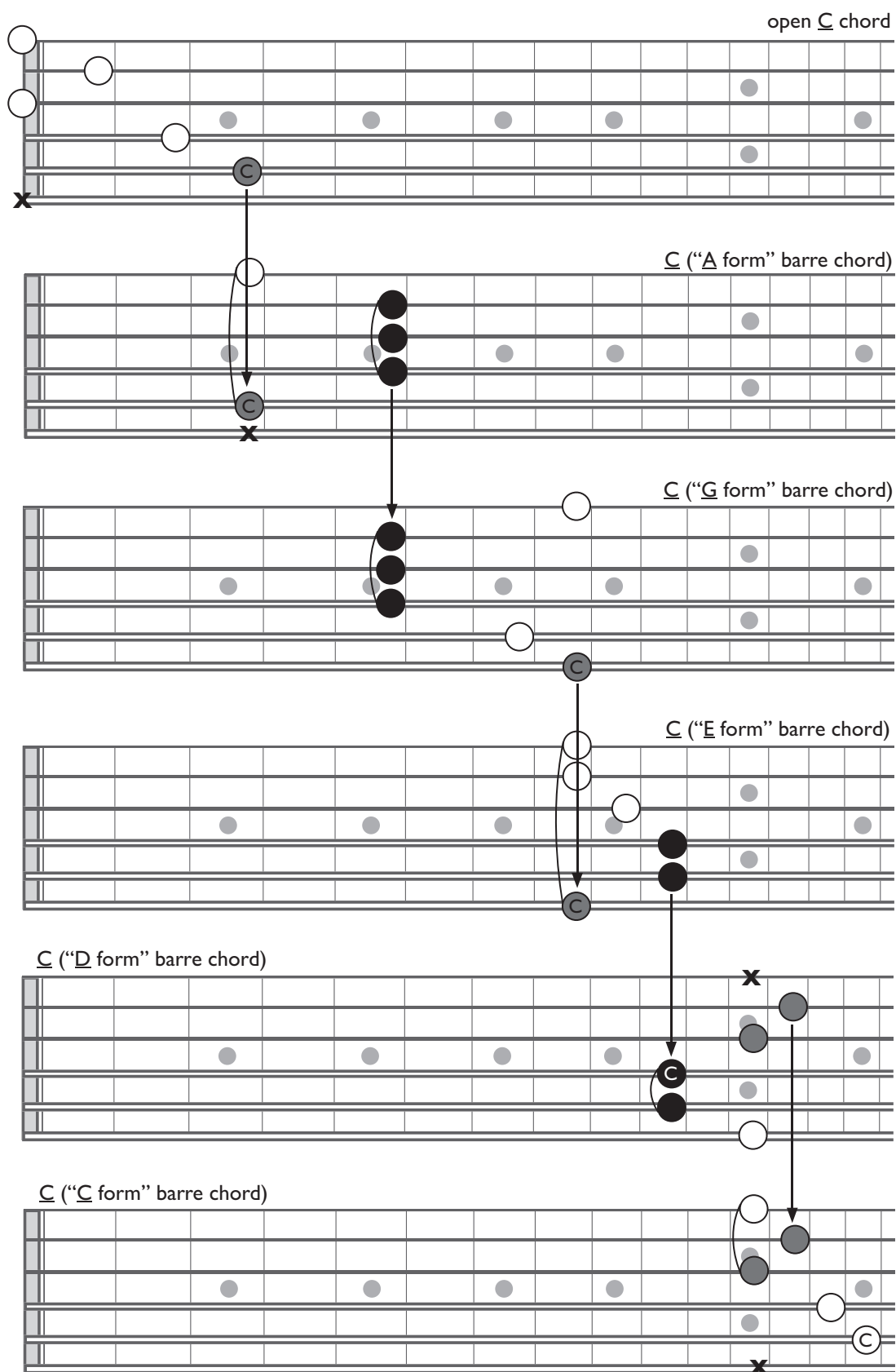
You've just come full circle! You're exactly one octave higher than where you started. You've just played a C chord across the whole fretboard. Can you do it again? Can you connect the forms backward? Can you play the arpeggio pattern for each form as you piece the template together?

CAGED Template C Major



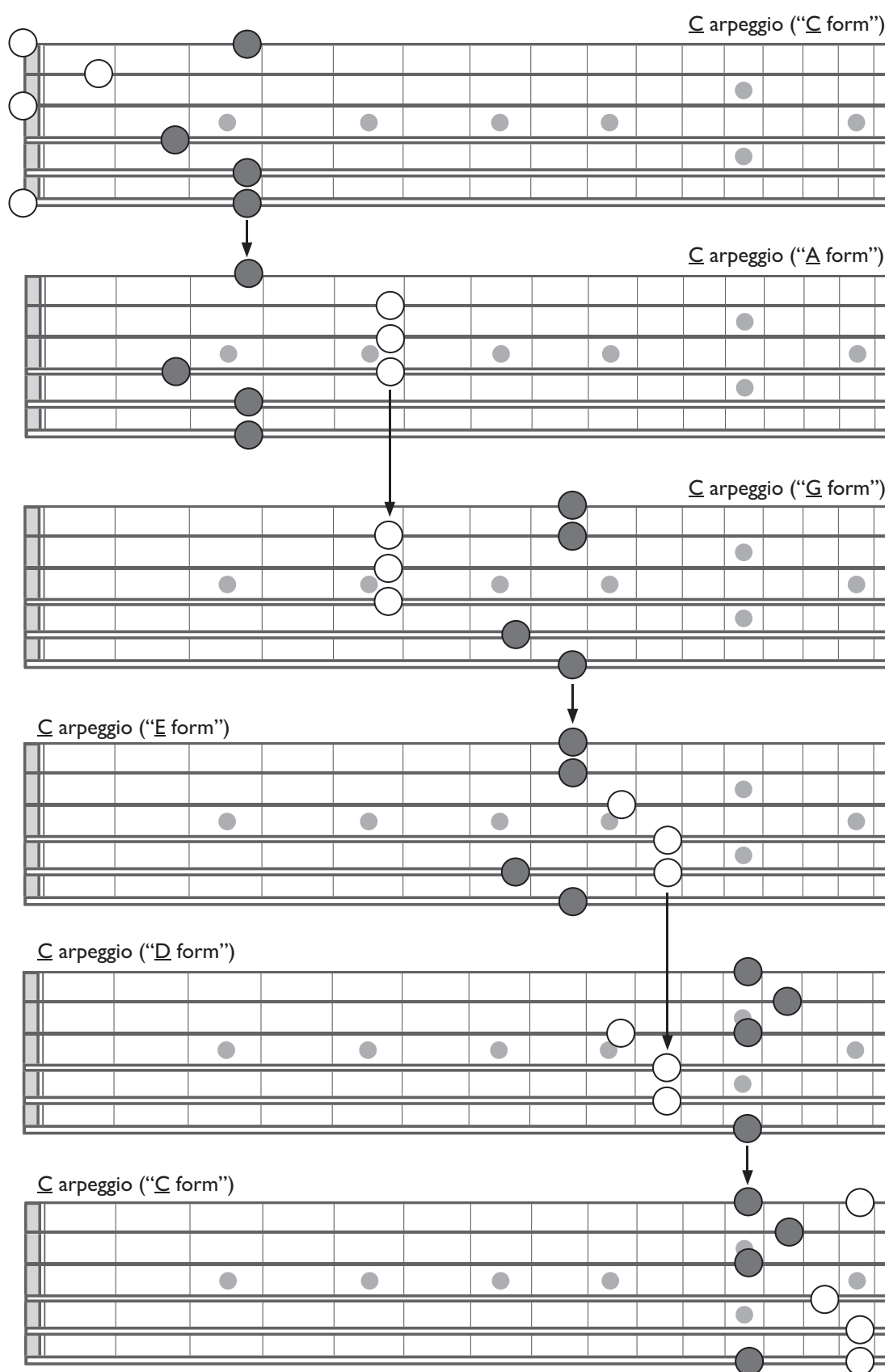
The diagrams on the next page are color-coded to help you visualize how each form connects to the next. Like scale patterns, you can continue to connect these chord forms until you run out of fretboard or can't play any higher. The forms always connect in the same order. C-A-G-E-D-C-A-G-E-D, etc., or backward D-E-G-A-C-D-E-G-A-C, etc. You can start anywhere in the loop. The template is really one giant chord that is broken up into five different forms just like the scale patterns from the last chapter.

Connecting The CAGED Template



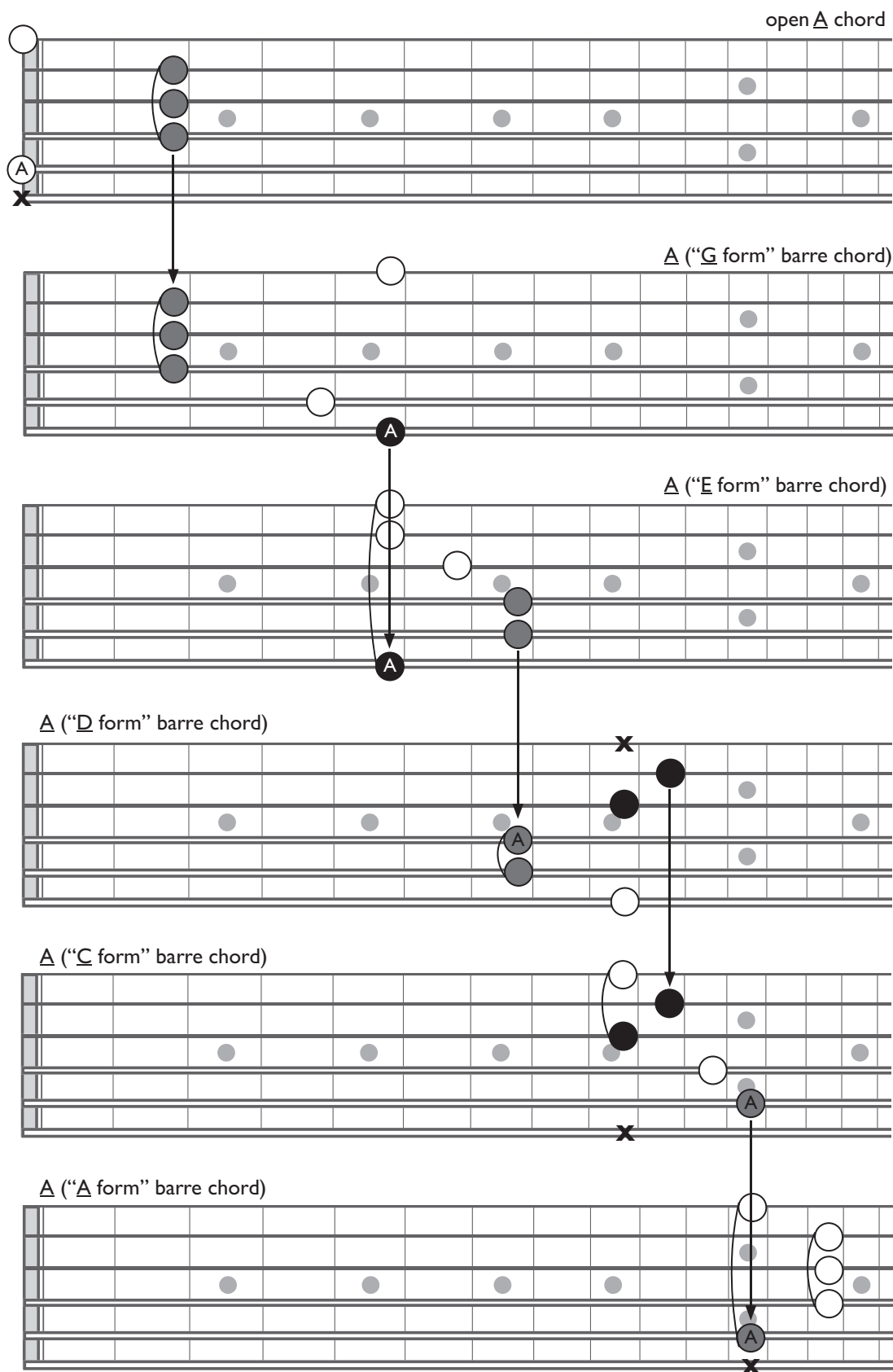
Arpeggio Patterns C Major

As you practice piecing together the barre chords, don't forget to review each form's corresponding arpeggio pattern. The diagrams below illustrate how a portion of each arpeggio pattern is reused for the next. These are all C major arpeggios.



CAGED Template A Major

The diagrams below start from an open A chord ("A form") and build the template for A major across the whole fretboard. Connect the forms until you can't go any higher. Then trace your way backward. As illustrated on the next page, play through the arpeggio pattern for each form as you piece the template together (the first pattern is incomplete in the open position). When you're done with A major, assemble the CAGED template for G, E and D.



Arpeggio Patterns A Major

Diagram illustrating the progression of Arpeggio Patterns for A Major across six systems of guitar strings (E, A, D, G, B, E).

System 1: open A chord (incomplete arpeggio)

System 2: A arpeggio ("G form")

System 3: A arpeggio ("E form")

System 4: A arpeggio ("D form")

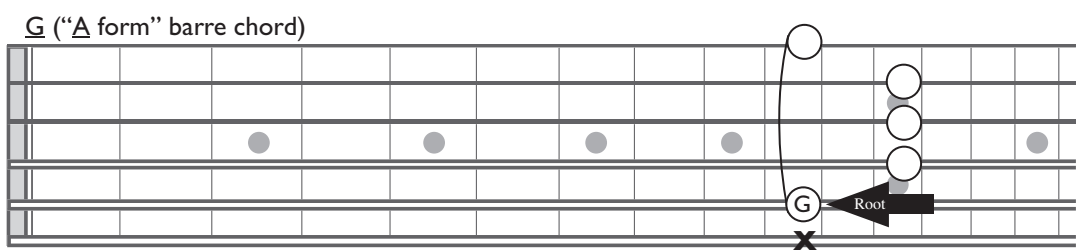
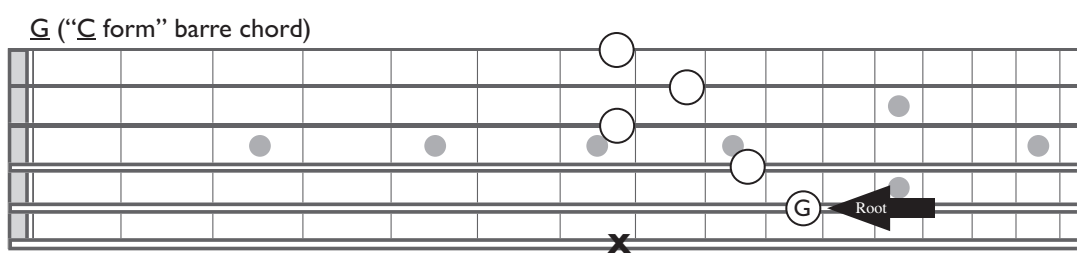
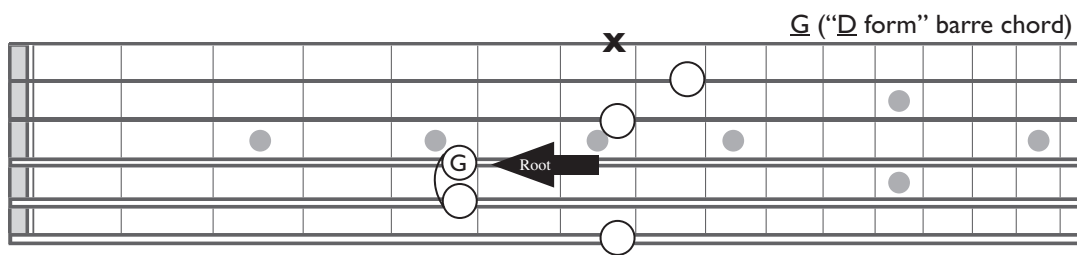
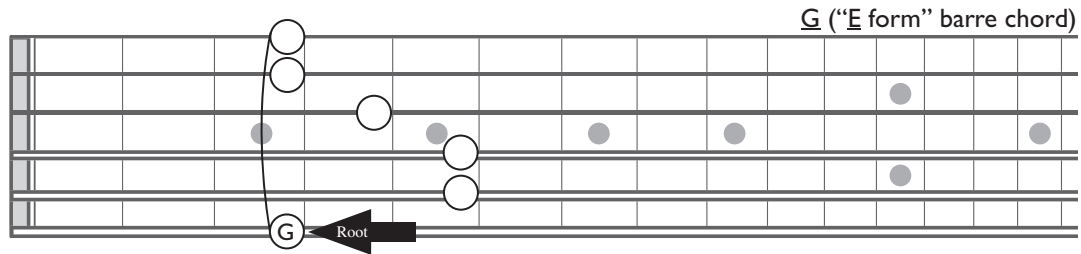
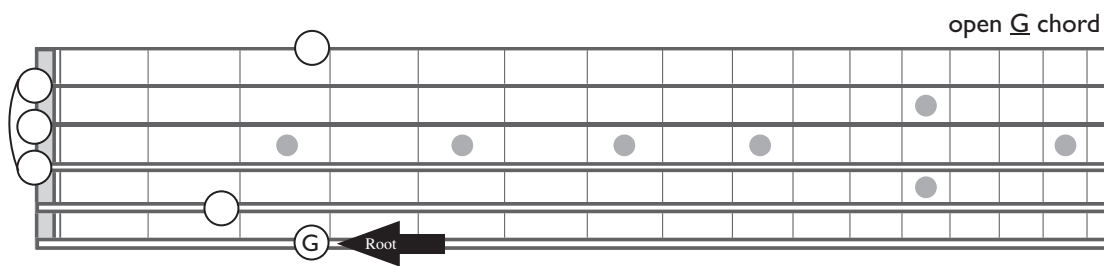
System 5: A arpeggio ("C form")

System 6: A arpeggio ("A form")

The diagram illustrates the progression of Arpeggio Patterns for A Major across six systems of guitar strings (E, A, D, G, B, E). Each system shows a sequence of notes (black dots) and fret numbers (white circles) connected by arrows, indicating the fingerings and movements for each form.

- System 1: open A chord (incomplete arpeggio)** shows the open strings E, A, D, G, B, E. The first three strings (E, A, D) have black dots on the 1st, 2nd, and 3rd frets respectively, indicating the notes F#, C#, and G.
- System 2: A arpeggio ("G form")** shows the first three strings (E, A, D) with black dots on the 1st, 2nd, and 3rd frets. The fourth string (G) has a white circle at the 2nd fret. The fifth string (B) has a white circle at the 1st fret. The sixth string (E) has a white circle at the 0th fret.
- System 3: A arpeggio ("E form")** shows the first three strings (E, A, D) with black dots on the 1st, 2nd, and 3rd frets. The fourth string (G) has a white circle at the 2nd fret. The fifth string (B) has a white circle at the 1st fret. The sixth string (E) has a white circle at the 0th fret.
- System 4: A arpeggio ("D form")** shows the first three strings (E, A, D) with black dots on the 1st, 2nd, and 3rd frets. The fourth string (G) has a white circle at the 2nd fret. The fifth string (B) has a white circle at the 1st fret. The sixth string (E) has a white circle at the 0th fret.
- System 5: A arpeggio ("C form")** shows the first three strings (E, A, D) with black dots on the 1st, 2nd, and 3rd frets. The fourth string (G) has a white circle at the 2nd fret. The fifth string (B) has a white circle at the 1st fret. The sixth string (E) has a white circle at the 0th fret.
- System 6: A arpeggio ("A form")** shows the first three strings (E, A, D) with black dots on the 1st, 2nd, and 3rd frets. The fourth string (G) has a white circle at the 2nd fret. The fifth string (B) has a white circle at the 1st fret. The sixth string (E) has a white circle at the 0th fret.

CAGED Template G Major



CAGED Template E Major

open E chord

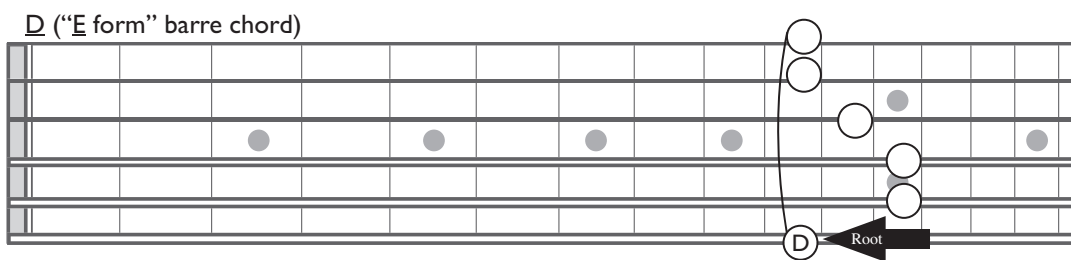
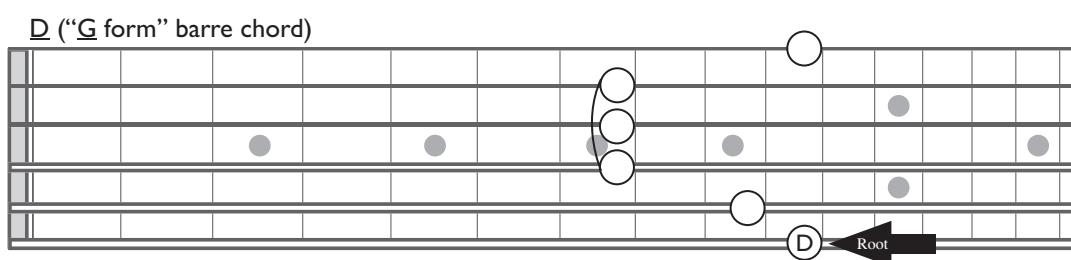
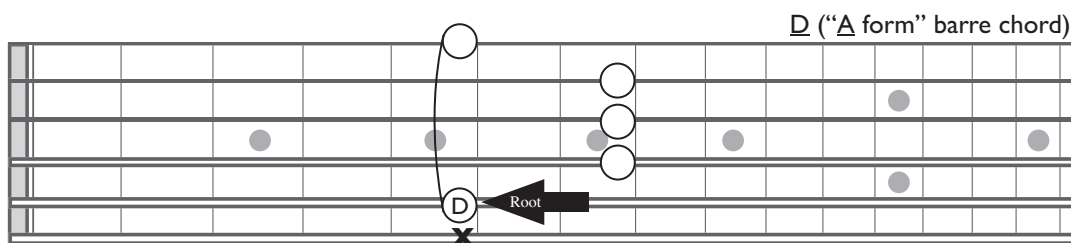
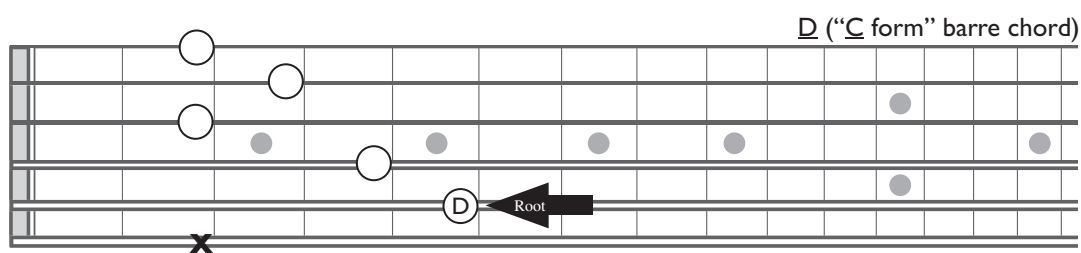
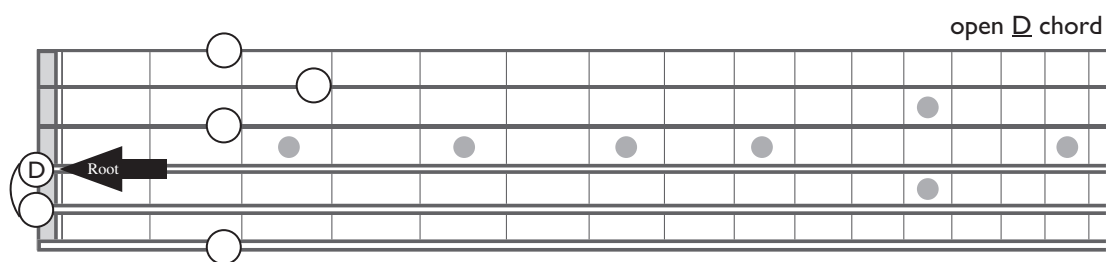
E ("D form" barre chord)

E ("C form" barre chord)

E ("A form" barre chord)

E ("G form" barre chord)

CAGED Template D Major



One Big Chord Form

The CAGED template includes everything you've learned in this chapter: arpeggio patterns, barre chords, partial shapes and voicings. It's really one big chord form covering the whole fretboard. You learn this chord by breaking it up into five arpeggio patterns. Each arpeggio pattern can be reduced to a barre chord, partial form, etc.

Conclusion

Now you know the most essential of all chord shapes and how to connect them across the whole fretboard in all keys using the CAGED template. You can map out all the notes of a chord in a given position using the arpeggio and then select notes to make different shapes and voicings. Bass players no longer need only to thump on the root of a chord because now they have a lot more note choices with which to experiment. The songs listed in this section demonstrate exactly how to put all this new information to good use and working them out should keep you busy for a while.

CAGED DVD

For video instruction on the guitar CAGED system see my DVD entitled *The CAGED Template Chord System*. More details, a free preview, and ordering information is available at my web site: <http://Guitar-Music-Theory.com>

Talk to Me

Have any questions or comments about this chapter? Are there other song references that you think make good examples? I want to hear from you! Contact me through my web site at: <http://Guitar-Music-Theory.com>

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Chapter 4

Five Is the Magic Number: Combining Pentatonic Scale and CAGED Template

About This Chapter

This chapter will show you how the five major chord forms fit into the five pentatonic scale patterns. You'll also learn five new relative minor chord forms and how they, too, fit into the pentatonic scale patterns. You'll know instantly what pentatonic scale to play over any major or minor chord in any position. This information will help you to embellish chords with melodies, harmonies, riffs, bass lines, and solos.

Topics Covered

1. Combining scale patterns and chord forms
2. Practicing
3. Application
4. Minor chord forms

Pentatonic/CAGED Template

The diagrams on the next page illustrate the A major pentatonic scale patterns in combination with the A major CAGED template chord forms and arpeggio patterns. Each diagram is color-coded. The black circles represent the common chord form. The black circles in combination with the gray circles represent the arpeggio pattern. All the circles represent the scale pattern.

The first diagram starts out with a “G form” barre chord and arpeggio pattern in pentatonic pattern one. When you play the barre chord in this position the note under your ring finger is A. This same A is also the second note in the scale pattern. In this example you’re playing an A major chord/arpeggio and the A major pentatonic scale. The corresponding scale pattern for a “G form” major barre chord is always pattern one regardless of the key or position.

The second diagram moves on to the next CAGED form and scale pattern. You’re still playing an A, but now you’re using the “E form” barre chord and scale pattern two. Diagram three illustrates the “D form” with scale pattern three. The “C form” and scale pattern four are next, followed by the “A form” and scale pattern five.

A Major Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms

The diagrams illustrate the A major pentatonic scale patterns, arpeggio patterns, and chord forms across five different CAGED positions. The patterns are shown on a six-string guitar fretboard. The first diagram shows the G form, the second the E form, the third the D form, the fourth the C form, and the fifth the A form. The patterns are color-coded: black circles for the common chord form, gray circles for the arpeggio, and white circles for the pentatonic scale.

Legend:

- All three circles represent the pentatonic pattern.
- The black and gray circles represent the arpeggio.
- The black circles represent the common chord form.

Practice

You need to practice associating the arpeggio patterns, chord forms, and scale patterns until they become one unit. To do this, play each component one right after another in one position. Repeat this several times until you master all three together. Once memorized, move on to the next position. As always, connect one form to another on the fretboard until you can't go any higher. Then trace your way back to where you started. Below is one example of how to do this, but you can put things in any order you choose. This exercise corresponds to the first diagram on the previous page.

A Major Arpeggio, Chord and Pentatonic Scale

The image displays musical notation for an A Major exercise, divided into two sections: 'arpeggio' and 'pentatonic'. Each section includes a guitar (Gtr.) staff, a bass staff, and a fretboard diagram with fingerings.

Arpeggio Section:

- Gtr. Staff:** Shows an A major arpeggio (A-C#-E-G) in the treble clef, followed by a whole A major chord. Labels 'arpeggio' and 'chord' are above the staff.
- Bass Staff:** Shows the same A major arpeggio and chord in the bass clef.
- Fretboard Diagrams:** Labeled '"G form"', they show fingerings for the arpeggio and chord on the guitar and bass staves. The guitar diagram shows the treble (T) and bass (B) strings with fingerings 2, 5, 5, 5, 2, 2, 2, 4, 5. The bass diagram shows the bass (B) and treble (T) strings with fingerings 5, 4, 2, 2, 2, 2, 4, 5.

Pentatonic Section:

- Gtr. Staff:** Shows the A major pentatonic scale (A-B-C#-E-G) in the treble clef. Label 'pentatonic' is above the staff.
- Bass Staff:** Shows the A major pentatonic scale in the bass clef.
- Fretboard Diagrams:** Labeled 'pattern I', they show fingerings for the pentatonic scale on the guitar and bass staves. The guitar diagram shows the treble (T) and bass (B) strings with fingerings 5, 2, 4, 2, 4, 2, 4, 2, 5, 2, 5, 2, 4, 2, 4, 2, 5, 2. The bass diagram shows the bass (B) and treble (T) strings with fingerings 5, 2, 4, 2, 4, 2, 4, 2, 4, 2, 5, 2, 4, 2, 4, 2, 5, 2.

Transposing

The next few pages illustrate the same chord/scale combination transposed to \underline{C} . All of the patterns are the same, they're just moved to correspond to \underline{C} . The notation exercise walks you through the practice routine for the first fretboard diagram. Once you get comfortable with this new key, you should practice piecing together the whole template for other keys.

C Major Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms

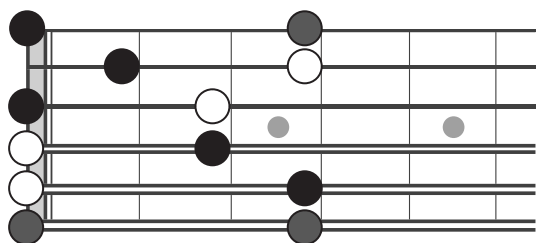


Diagram illustrating the C Major Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms on a four-line staff. The scale is shown in ascending and descending patterns. The arpeggio is shown as a sequence of notes. The common chord form is shown as a vertical stack of notes.

Legend:

- All three circles represent the pentatonic pattern.
- The black and gray circles represent the arpeggio.
- The black circles represent the common chord form.

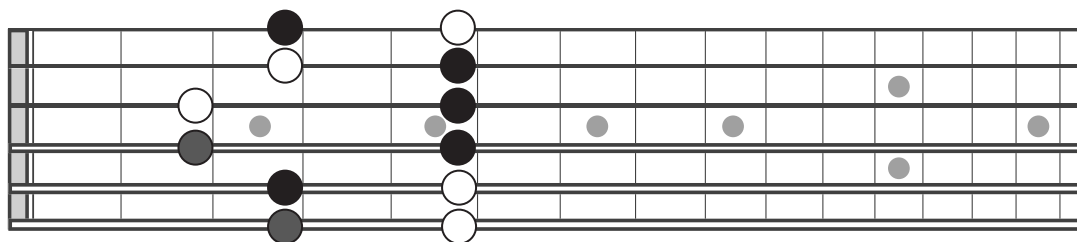


Diagram illustrating the C Major Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms on a four-line staff. The scale is shown in ascending and descending patterns. The arpeggio is shown as a sequence of notes. The common chord form is shown as a vertical stack of notes.

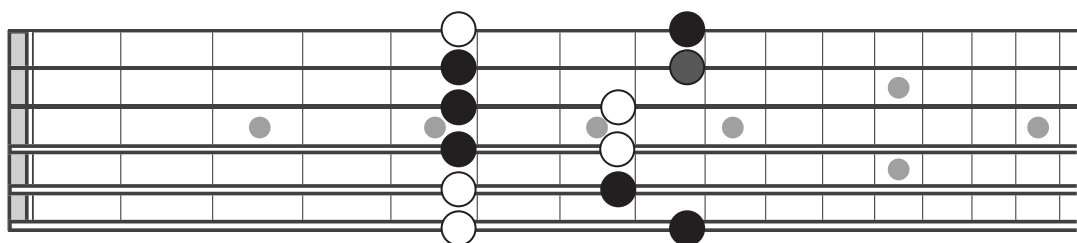


Diagram illustrating the C Major Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms on a four-line staff. The scale is shown in ascending and descending patterns. The arpeggio is shown as a sequence of notes. The common chord form is shown as a vertical stack of notes.

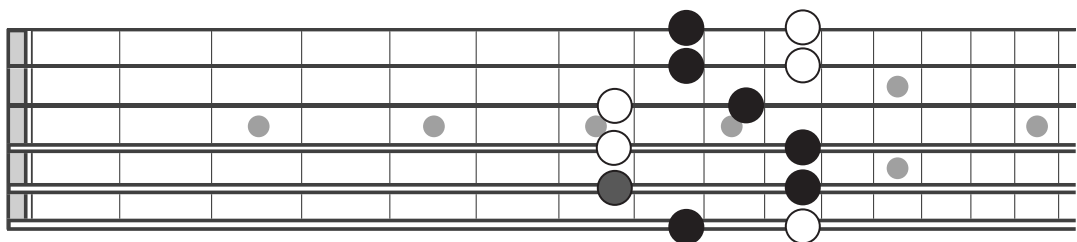


Diagram illustrating the C Major Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms on a four-line staff. The scale is shown in ascending and descending patterns. The arpeggio is shown as a sequence of notes. The common chord form is shown as a vertical stack of notes.

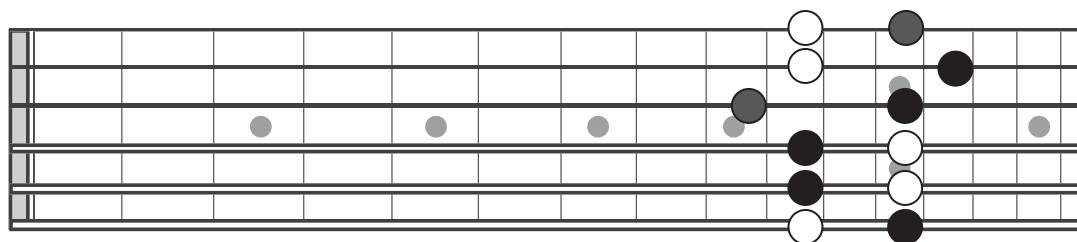


Diagram illustrating the C Major Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms on a four-line staff. The scale is shown in ascending and descending patterns. The arpeggio is shown as a sequence of notes. The common chord form is shown as a vertical stack of notes.

C Major Arpeggio, Chord and Pentatonic Scale

The image shows musical notation for the C Major Arpeggio, Chord, and Pentatonic Scale. It is divided into two main sections: 'arpeggio' and 'chord' for the first section, and 'pentatonic' for the second section. Each section includes a guitar (Gtr.) staff, a bass staff, and a fretboard diagram with fingerings.

Arpeggio and Chord Section:

- Gtr. Staff:** Shows the C major arpeggio (C-E-G) in 4/4 time, followed by a C major chord. The label 'arpeggio' is above the first measure, and 'chord' is above the second measure.
- Bass Staff:** Shows the C major arpeggio and chord in 4/4 time.
- Fretboard Diagrams:** Two diagrams labeled '"C form"' show fingerings for the C major arpeggio and chord on the guitar fretboard.

Pentatonic Section:

- Gtr. Staff:** Shows the C major pentatonic scale (C-D-E-F-G-A) in 4/4 time. The label 'pentatonic' is above the first measure.
- Bass Staff:** Shows the C major pentatonic scale in 4/4 time.
- Fretboard Diagrams:** Two diagrams labeled 'pattern 4' show fingerings for the C major pentatonic scale on the guitar fretboard.

Application

Any kind of player can benefit from knowing this chord/scale relationship. Lead guitarists can use the arpeggio and scale patterns to play solos over chords. Bass players can use the arpeggios to outline a chord along with the scale patterns to create movement between chord-tones. If you're not interested in playing solos you can still use the scale to compose riffs and melodies, including vocal melodies or parts for other instruments. Even if you're strictly a rhythm player you can make good use of occasional arpeggio and scale phrases. You can even take a note from the scale that's not already a chord-tone and add it into a chord shape to create a more complex chord.

Have a friend play some rhythm using a major chord (or a progression revolving around a major chord) on a guitar, bass or piano. Then play along using corresponding arpeggio and scale patterns. If no one's around to jam with, record your own play-along rhythm. If these options aren't available to you, just mix things up on your own and have fun.

As discussed in Chapter 2, the pentatonic scale doesn't have to be transposed with each chord change. Most progressions usually have one chord functioning as the root. Whatever that root chord may be, a corresponding pentatonic scale can be played over the entire progression. For example, "Yellow Ledbetter" by Pearl Jam has a chord progression that includes E, B, and A, and the E functions as the root. You can play the E major pentatonic scale over all three chords in this example.

Minor Chords

All of the open CAGED forms can be converted to minor forms. In the open position this is easily done with Am, Em and Dm but Cm and Gm are rarely, if ever, used. In fact, these two awkward forms are uncommon elsewhere on the fretboard but it's still beneficial to learn them.

If you did all your work with the major forms from the last chapter, then you'll have no trouble piecing together new minor forms the same way. There are no illustrations for the common open minor forms because you already know them or can easily figure them out at this point. The diagrams below illustrate minor pentatonic scale patterns, minor arpeggio patterns and minor chord forms for F[#]. Notation for the first diagram is on the next page.

F[#] Minor Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms

F[#] minor ("Em form")

Legend:

- All three circles represent the pentatonic pattern.
- The black and gray circles represent the arpeggio.
- The black circles represent the common chord form.

F[#] minor ("Dm form")

F[#] minor ("Cm form")

F[#] minor ("Am form")

F[#] minor ("Gm form")

F# Minor Arpeggio, Chord and Pentatonic Scale

arpeggio

chord

Gtr.

"Em form"

"Em form"

Bass

root

root

4

pentatonic

pattern I

pattern I

The musical notation is presented in two systems. The first system shows the arpeggio and chord for the F# minor scale. The guitar part (Gtr.) is in treble clef, and the bass part (Bass) is in bass clef. The arpeggio is shown in both staves, and the chord is shown in the guitar staff. The second system shows the pentatonic scale, labeled 'pattern I', in both staves. The guitar part is in treble clef, and the bass part is in bass clef. The key signature has one sharp (F#).

Practicing and Transposing

You can piece together the minor chords, arpeggios and scale patterns, along with experimenting with partial forms, inversions and voicings just as you did with the majors. As always, be sure to do this in several keys until you get the hang of it. Below are the same minor chord forms and scale patterns from the previous example transposed to Am. Notation is on the next page. Page 62 illustrates some common partial forms.

A Minor Pentatonic Scale Patterns, Arpeggio Patterns, and Chord Forms

A minor ("A_m form")

A minor ("G_m form")

A minor ("E_m form")

A minor ("D_m form")

A minor ("C_m form")

All three circles represent the pentatonic pattern.
 The black and gray circles represent the arpeggio.
 The black circles represent the common chord form.

The diagrams illustrate the A minor pentatonic scale, arpeggio, and chord forms in five different positions on the guitar fretboard. Each diagram shows the root note with an arrow labeled 'Root'. The legend indicates that black circles represent the common chord form, gray circles represent the arpeggio, and white circles represent the pentatonic pattern.

A Minor Arpeggio, Chord and Pentatonic Scale

4

Gtr. arpeggio chord

"Am form" "Am form"

Bass

pentatonic

pattern 4

The image displays a musical score for guitar and bass in 4/4 time, focusing on the A minor scale and its arpeggiated and chordal forms. The score is divided into three main sections: an arpeggio exercise, an A minor chord exercise, and a pentatonic scale exercise. Each section includes a guitar (Gtr.) and bass line, with corresponding fretboard diagrams below them. The fretboard diagrams use numbers 0-3 to indicate fret positions and letters T, A, B to indicate string positions (Treble, A, Bass). The 'Am form' diagrams show the standard A minor chord shape. The pentatonic section is labeled 'pattern 4' and shows a specific fingering sequence for the A minor pentatonic scale.

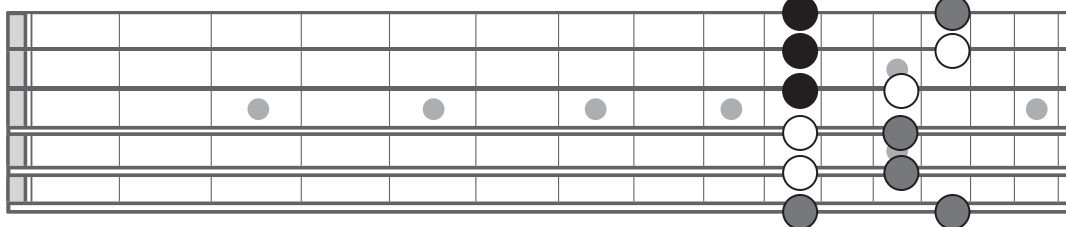
Arpeggio Section: The guitar line plays an A minor arpeggio (A2, C3, E3, G3, A3, C4, E4, G4) across three measures. The bass line plays a similar arpeggio (A1, C2, E2, G2, A2, C3, E3, G3). The fretboard diagrams show the fingering for these notes on the guitar and bass strings.

Chord Section: The guitar line plays an A minor chord (A2, C3, E3, G3, A3, C4, E4, G4) across three measures. The bass line plays an A minor chord (A1, C2, E2, G2, A2, C3, E3, G3). The fretboard diagrams show the fingering for these notes on the guitar and bass strings.

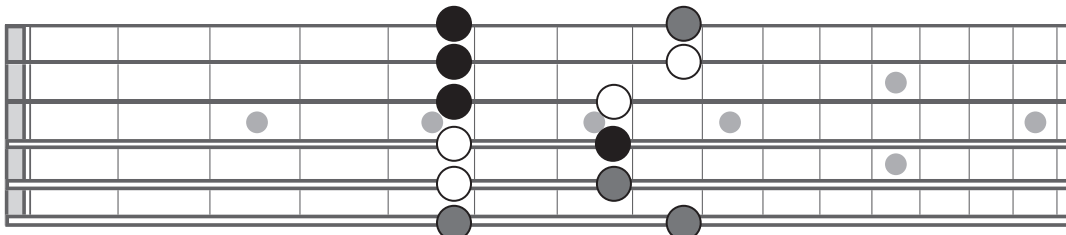
Pentatonic Section: The guitar line plays the A minor pentatonic scale (A2, C3, E3, G3, A3, C4, E4, G4) across three measures. The bass line plays the A minor pentatonic scale (A1, C2, E2, G2, A2, C3, E3, G3). The fretboard diagrams show the fingering for these notes on the guitar and bass strings.

Partial Minor Forms

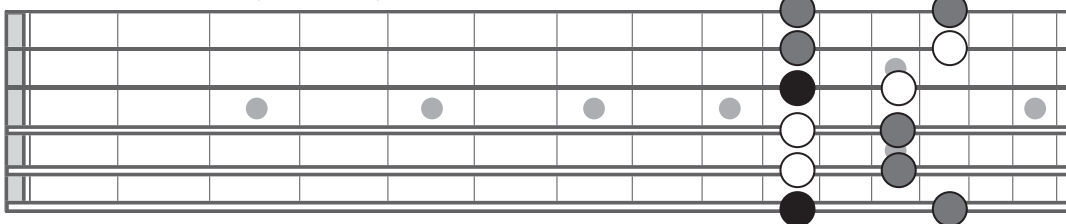
“Another Brick In the Wall (Part II)” \underline{D} minor (“ $\underline{E}m$ form”)



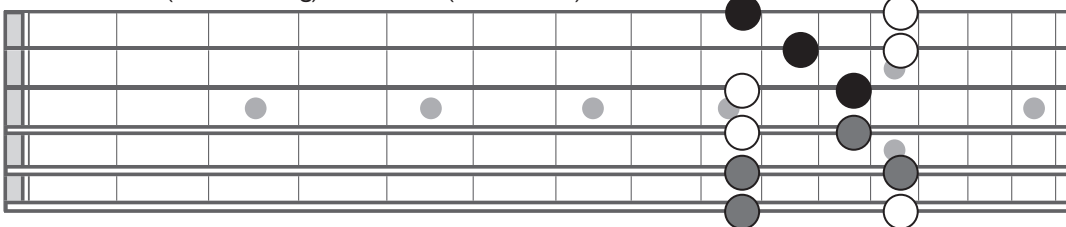
“Stairway to Heaven” \underline{A} minor (“ $\underline{E}m$ form”)



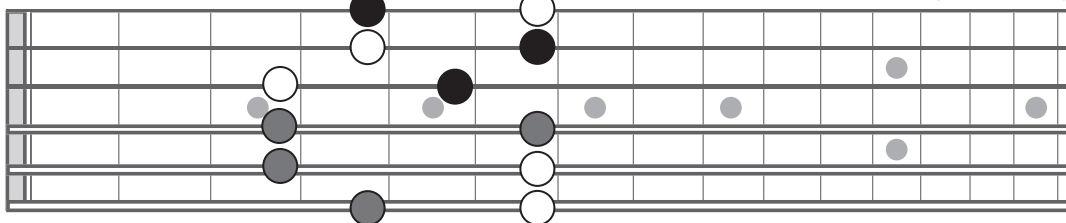
“Scar Tissue” \underline{D} minor (“ $\underline{E}m$ form”)



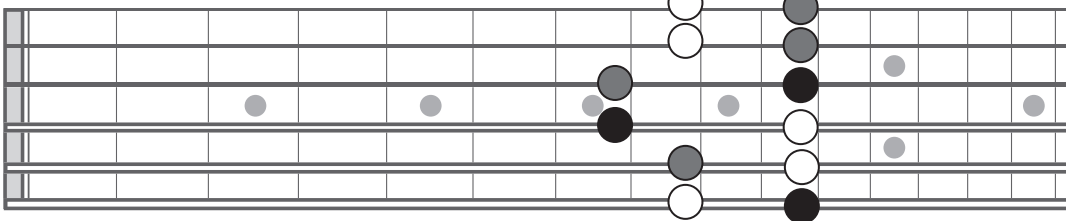
“All Your Love (I Miss Loving)” E^\sharp minor (“ $\underline{A}m$ form”)



“Dream On” E minor (“ $\underline{D}m$ form”)



“So Much to Say” \underline{D} minor (“ $\underline{G}m$ form”)



Songs

Many of the song examples from the last chapter have minor chords in them. Some of the same tunes are repeated below along with new examples that utilize the minor forms you just learned.

Minor Forms

"The Impression That I Get" The Might Mighty Bosstones.....	<i>Gtr. Intro</i>
"Dream On" Acorsmith.....	<i>Gtr. Intro</i>
"Island in the Sun" Weezer.....	<i>Gtr. Intro/Verse</i>
"So Much to Say" Dave Matthews Band.....	<i>Gtr. Intro/Verse</i>
"Scar Tissue" Red Hot Chili Peppers.....	<i>Gtr. Intro/Verse</i>
"Stairway to Heaven" Led Zeppelin.....	<i>Gtr. Intro, Interlude</i>
"Under the Bridge" Red Hot Chili Peppers.....	<i>Gtr. Verse</i>
"Santeria" Sublime.....	<i>Gtr. Verse, Chorus</i>
"Another Brick in the Wall (Part II)" Pink Floyd.....	<i>Gtr. Chorus</i>
"Get Down Tonight" KC & The Sunshine Band.....	<i>Gtr. Chorus</i>
"All Your Love (I Miss Loving)" Otis Rush.....	<i>Gtr. Solo</i>
"Life's Been Good" Joe Walsh.....	<i>Acous. Gtr.</i>
"Two Step" Dave Matthews Band.....	<i>Gtr. Throughout</i>

Conclusion

Now you know how to combine the pentatonic scale patterns and the CAGED chord forms. You know that scale patterns, arpeggio patterns and chord forms can be thought of as one unit and used interchangeably to create different musical parts. Finally, you can begin piecing together the minor CAGED template just as you did the major.

Talk to Me

Have any questions or comments about this chapter? Are there other song references that you think make good examples? I want to hear from you! Contact me through my web site: <http://Guitar-Music-Theory.com>

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Chapter 5

The Major Scale

About This Chapter

Like the pentatonic scale, the major scale is used to create melodies, riffs solos and bass lines. This chapter will show you how to construct the major scale, play five major scale patterns and connect them around the fretboard in any key. This chapter offers plenty of useful tips and song examples to help you along the way.

You'll learn in upcoming chapters just how important the major scale is. Everything musical is either derived from the major scale or measured by the major scale. Because of this scale's significance, this chapter will be a bit more involved than your study of the pentatonic scale. You'll learn in more depth about the major scale's construction by reading about the chromatic scale. Additionally, you'll learn how to practice this scale more thoroughly by playing along with recordings.

Topics Covered

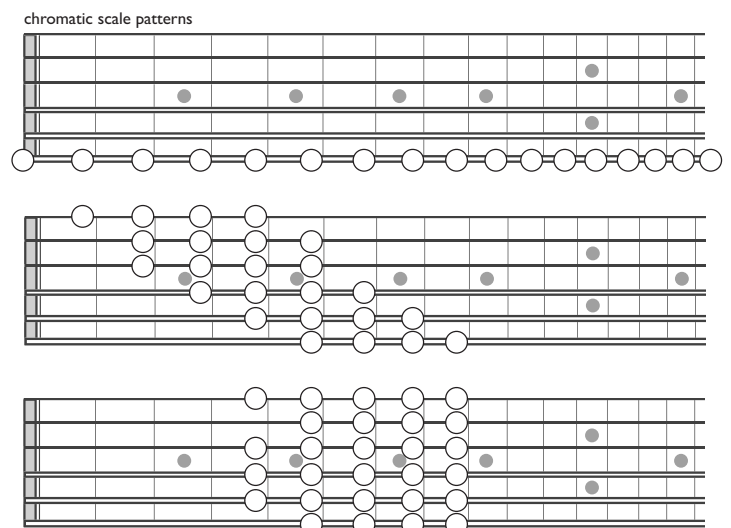
1. Chromatic scale
2. Step formula
3. Keys
4. Scale template (patterns)
5. Practicing with recordings
6. Pentatonic/major scale comparison
7. Chromatic passing tones
8. Lots of songs!

The Chromatic Scale

On the fretboard an octave is divided up by twelve frets creating twelve different tones. This series of tones is considered the chromatic scale. This scale is constructed entirely of half-steps. There are no spaces in between the notes. All octaves are divided up in this manner resulting in the chromatic scale each time.

All chromatic scales are the same because they all use every note. The note on which you start doesn't matter because there's really only one chromatic scale. Chromatic tones are used to bridge the gap between the notes of other scales. Nothing is ever in a chromatic key.

It's easy to remember how to play the chromatic scale because every note is fair game. The diagrams below illustrate a few different ways you can approach this scale on the fretboard. It's not necessary to know these patterns but you may find them fun to play. Quickly playing these patterns backward creates a sound perfect for use in a cartoon when a character falls off a cliff. 12-11-10-9-8-7-6-5-4-3-2-1-Splat! For very high cliffs play through more than one octave.



You're already familiar with chromatic passing tones in the pentatonic scale that create three adjacent notes. The song examples in the opposite column have chromatic parts with four or more adjacent notes. Bass players use this technique frequently to "walk up" to a target note. "White Christmas" includes a chromatic melody and is notated for you below.

Chromatic Riffs

"Couldn't Stand the Weather" Stevie Ray Vaughan.....	Band Fig. After Intro
"Stairway to Heaven" Led Zeppelin.....	Chord Roots During Intro
"Let's Go Crazy" Prince.....	Gtr. & Bass Riff After Chorus
"Oye Como Va" Santana.....	Bridge Section Similar To "Stairway")
"Hey Joe" Jimi Hendrix.....	Gtr. & Bass After Solo
"Money" Pink Floyd.....	Bass During Solo
"Sweet Emotion" Aerosmith.....	Gtr. & Bass Riff Between Verses
"Chop Suey!" System of a Down.....	Gtr. & Bass Power Chord Riff
"Killing Floor" Howlin' Wolf.....	Gtr. & Bass Riff
"Smoke on the Water" Deep Purple.....	Bass
"Sugar" System of a Down.....	Bass
"Dazed and Confused" Led Zeppelin.....	Bass Intro
"Fire" Jimi Hendrix.....	Bass Chorus
"White Christmas" Traditional.....	Vocal Melody

White Christmas

chromatic melody

Gtr. **4/4**

C Dm C B C Dm D#m Em

"I'm dream ing of a white Christ mas"

T 5 6 5 4 5 6 7 8

A

B

Bass **4/4**

T 2 3 2 1 2 3 4 5

A

B

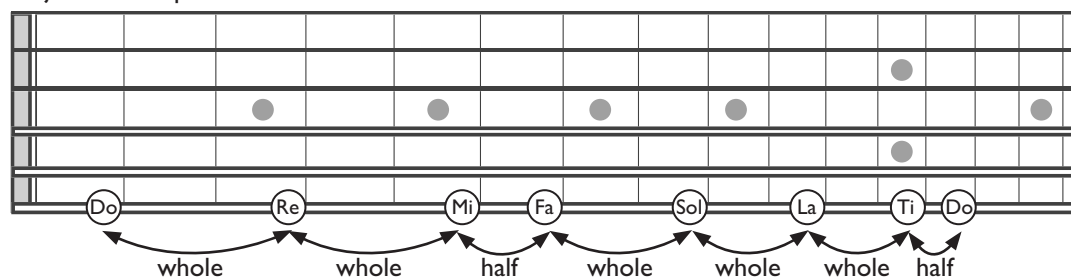
Step Up to the Major Scale

When the twelve half-step chromatic scale is divided up into seven parts the almighty major scale (hear angels sing “Ahhhhhhhhhhh”) is created. In fact, the original purpose of the chromatic scale was simply to build major scales in various keys.

In order to divide the chromatic scale up into a major scale, the division of notes must follow this formula: whole-step, whole-step, half-step, whole-step, whole-step, whole-step, half-step. If you start on any given string at any given fret and follow this formula, then you will create a major scale and end exactly one octave higher from where you began.

The diagram below starts you at the first fret of the sixth string on an F note. Major scales are always named after their first note. As long as room allows, you can start a major scale on any string and at any fret (open strings too). Simply follow the formula of whole-steps and half-steps. Try it!

Major scale step formula



This scale should sound very familiar. While ascending it sounds like “Do, Re, Mi, Fa, Sol, La, Ti, Do.” When played backward, the same notes will sound like “Joy to the world, the Lord is come...” Be sure to play in the same rhythm that you’d sing. A few popular guitar-oriented songs that use the entire major scale backward are “Friend of the Devil” by The Grateful Dead, “Mama I’m Coming Home” by Ozzy Osbourne and “Wild World” by Cat Stevens.

"Do, Re, Mi and Joy to the World"

F major scale

Gtr.

"Do Re Mi Fa Sol La Ti Do" "Joy to the world the Lord is come"

T
A
B

1 3 5 6 8 10 12 13 13 12 10 8 6 5 3 1

Bass

T
A
B

1 3 5 6 8 10 12 13 13 12 10 8 6 5 3 1

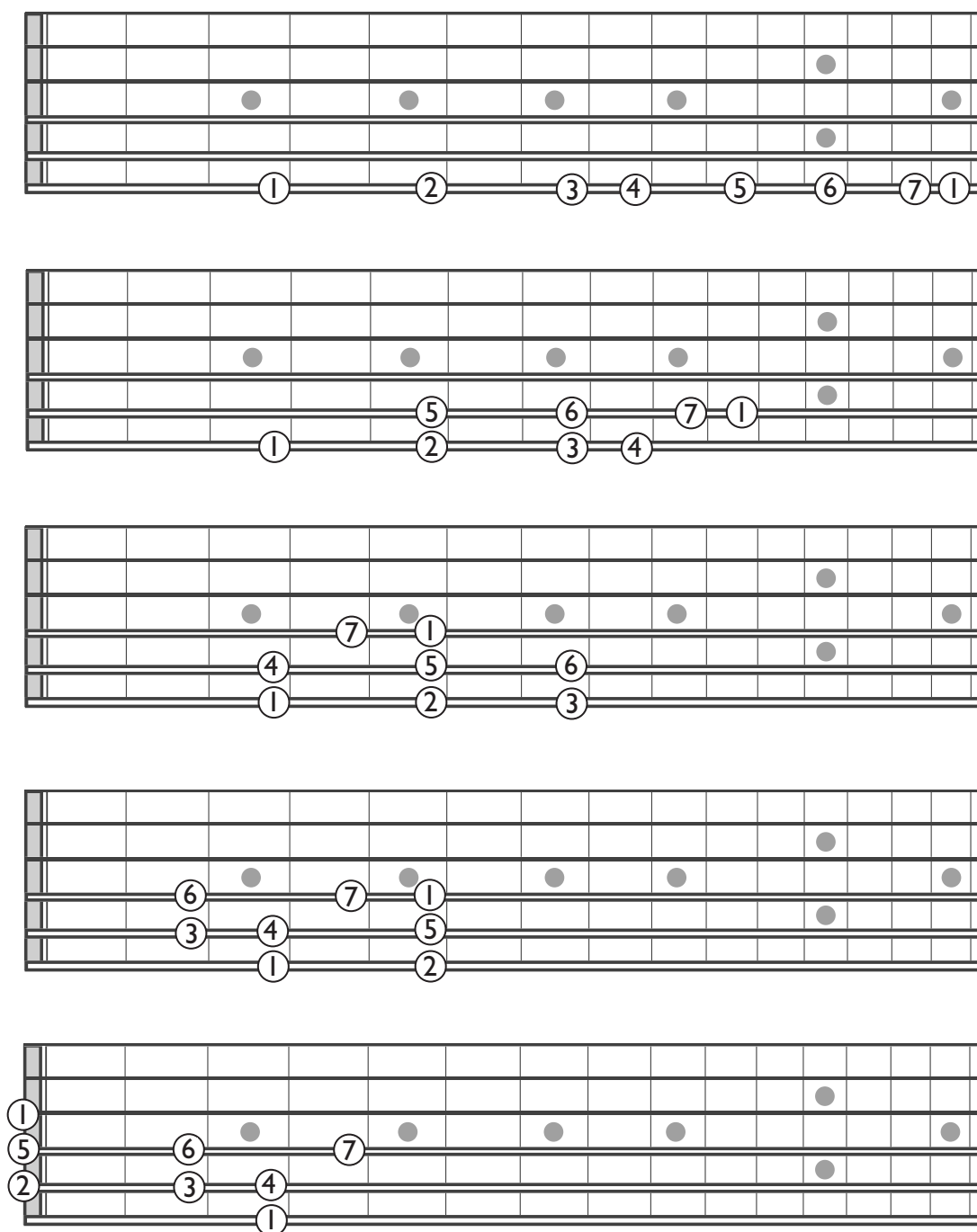
The musical notation is for a guitar and bass performance. The guitar part is in 4/4 time, starting with a treble clef and a key signature of one flat (Bb). The bass part is also in 4/4 time, starting with a bass clef and a key signature of one flat (Bb). The guitar part has two staves: a top staff with notes and a bottom staff with fret numbers (1, 3, 5, 6, 8, 10, 12, 13, 13, 12, 10, 8, 6, 5, 3, 1). The bass part has two staves: a top staff with notes and a bottom staff with fret numbers (1, 3, 5, 6, 8, 10, 12, 13, 13, 12, 10, 8, 6, 5, 3, 1). The guitar part includes lyrics: "Do Re Mi Fa Sol La Ti Do" and "Joy to the world the Lord is come".

Keys

Keys are determined by where you start the scale pattern on the fretboard. Following the step formula causes the distances between the major scale notes to remain the same regardless of where you begin. If you start on a high-pitched note you'll create a higher version of the major scale and its subsequent melodies. If you start on a low-pitched note you'll create a lower version.

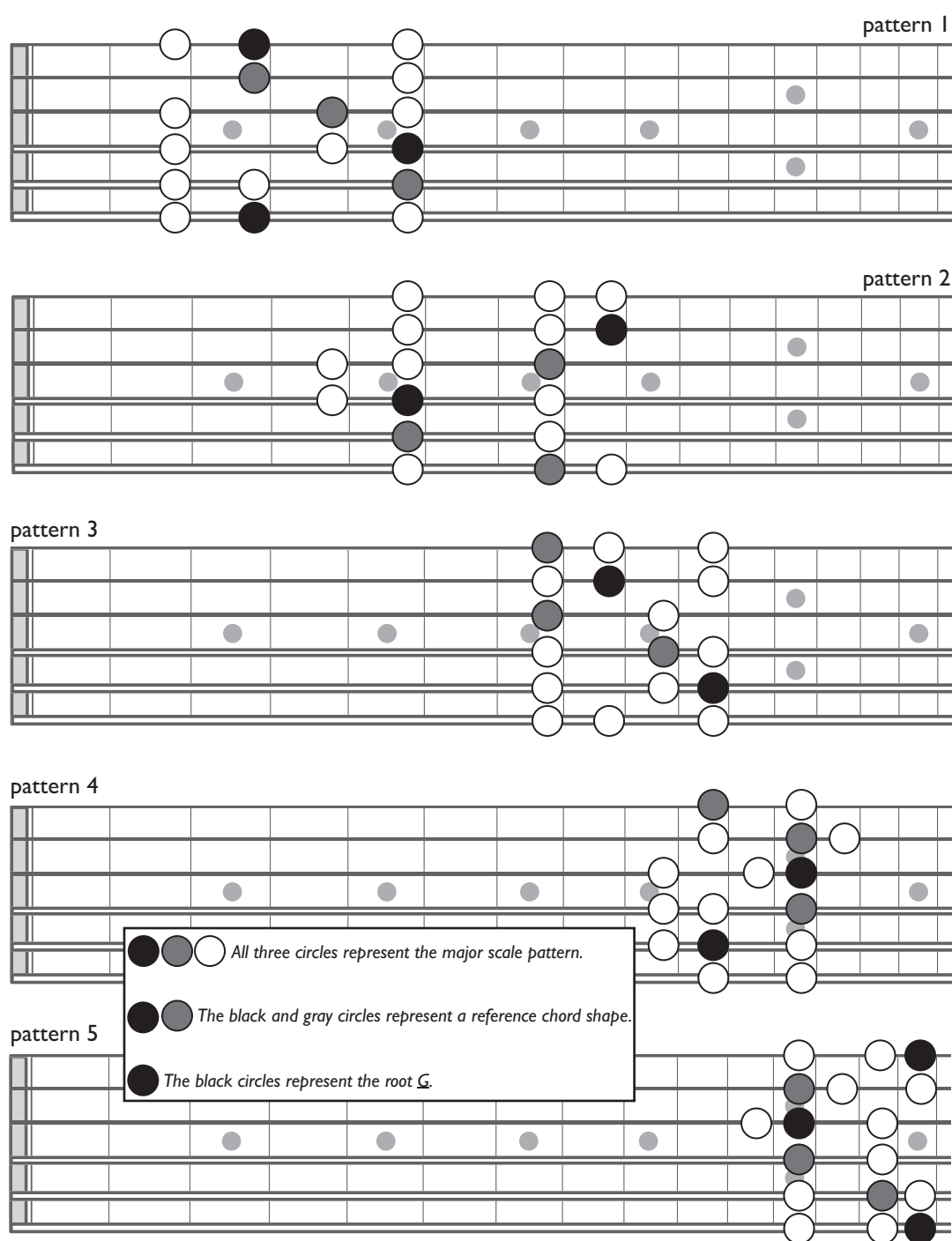
Major Scale Patterns

The guitar, unlike a piano, is unique in that most notes are available in more than one location. Major scales have more notes than pentatonic scales and this results in more pattern possibilities. Below you can see some of the possibilities for playing a G major scale in one octave.




Like any scale or chord, the notes of the major scale are scattered all around the fretboard. A good way to get into playing major scales is to break up the notes of a key into five patterns. You may be wondering whether or not these patterns fit into the CAGED template. Yes, they do. There are three different ways they can fit. You'll learn one way now and the other possibilities will be discussed in a later chapter.

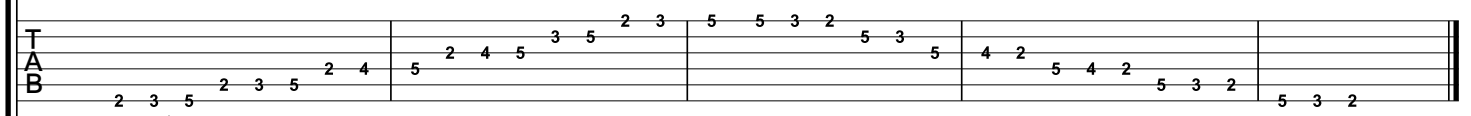
The diagrams below illustrate the five major scale patterns in the key of G. All the circles represent the scale patterns. The colored circles represent major chords with the black circles being the root G. Associating this new scale template with the familiar CAGED template will enable you to jump into the scale at different starting positions more easily. Each pattern extends just over two octaves and covers a whole position, *but don't expect things to start on the root* (pattern one actually starts on the scale-tone before the root). Memorize these patterns and don't forget to connect them until you can't go any higher. Additionally, check to see if any patterns can fit in the open position before pattern one starts.




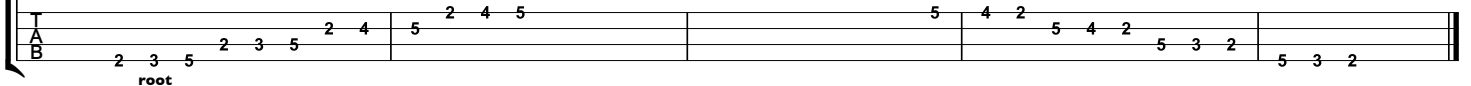
G Major Scale

pattern I

Gtr. 

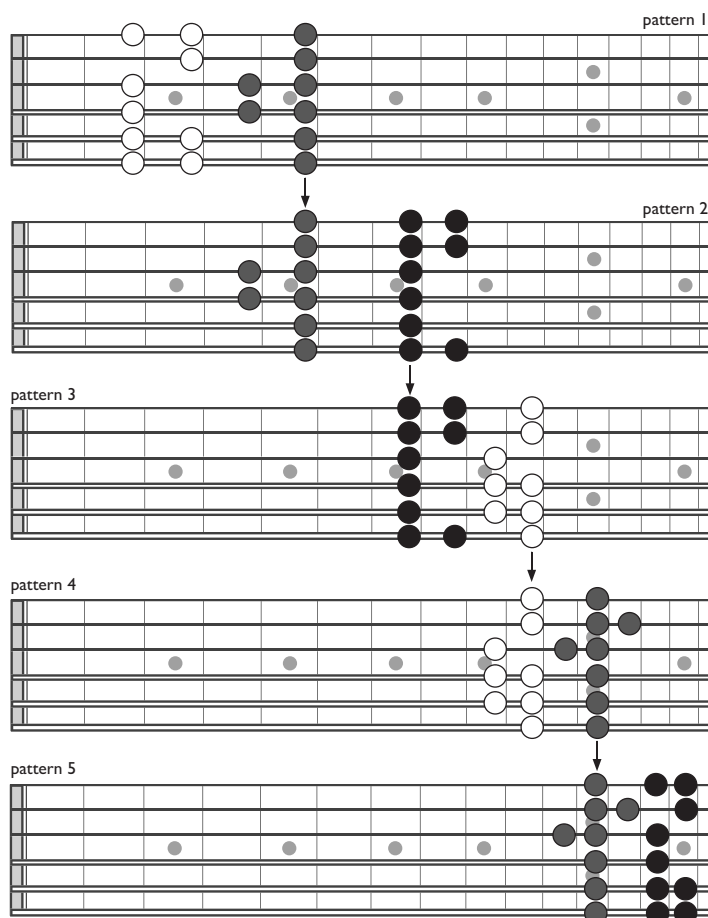
TAB 
 2 3 5 2 3 5 2 4 5 2 4 5 3 5 2 3 5 5 3 2 5 3 5 4 2 5 4 2 5 3 2 5 3 2
 root

Bass 

TAB 
 2 3 5 2 3 5 2 4 5 2 4 5 5 4 2 5 4 2 5 3 2 5 3 2
 root

Connecting the Patterns

Just like with the penatonic scale and the CAGED chord forms you should visualize how the new major scale patterns connect. The diagram below illustrates how a portion of each pattern is reused in the next.



Transposing

The diagrams on the next page illustrate the same patterns transposed to the key of C starting with pattern three in the open position. Pattern three connects to pattern four, pattern four connects to pattern five and so on until you can't play any higher. A second pattern three, an octave higher than the original, is included in the example. Don't forget to try connecting all the patterns backward starting in the highest position you're able to play in. Page 72 includes a notation example for this new key.

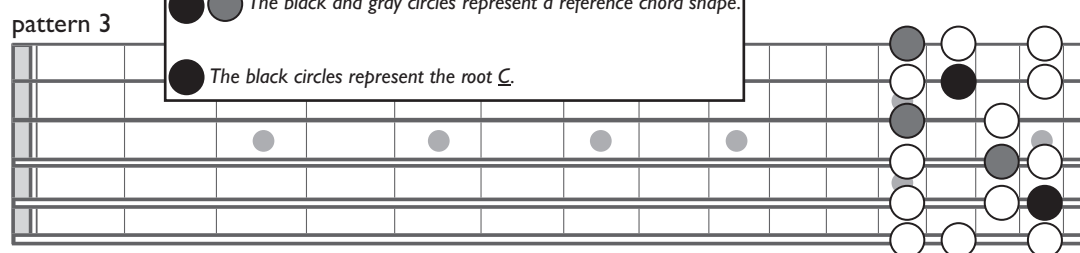
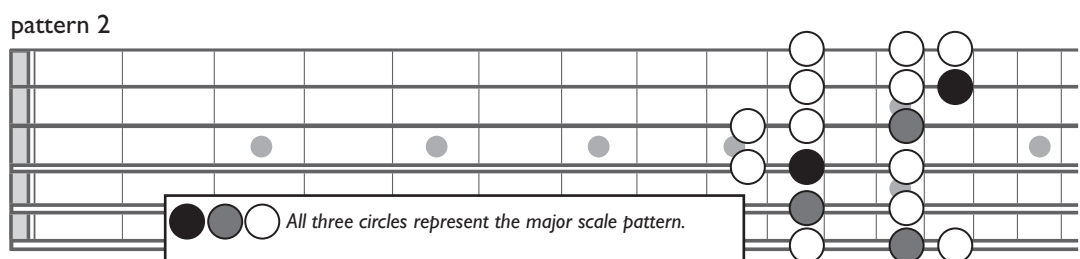
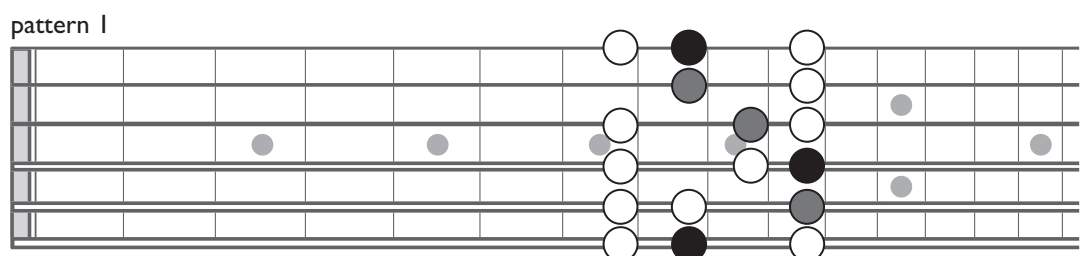
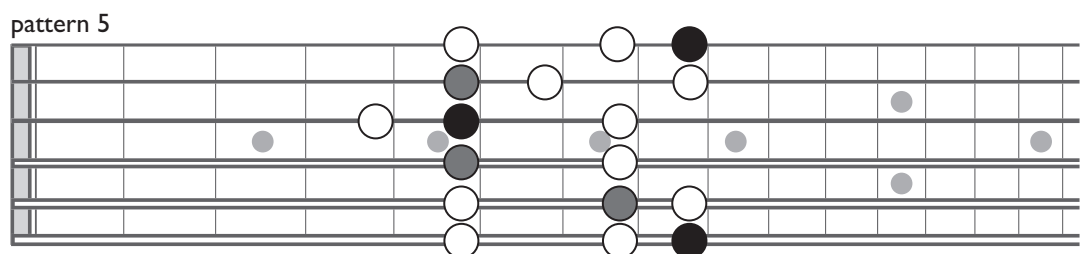
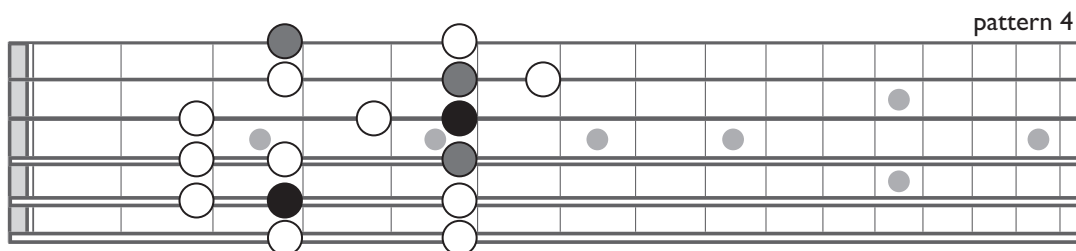
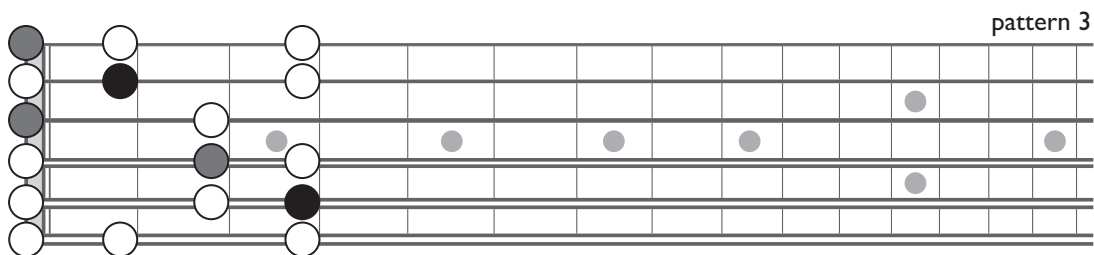
Exercise

You need to spend time practicing these patterns in various keys. A good way to do this is by starting at each fret.

Start with the key of F at the first fret. Connect all the patterns until you've covered the whole fretboard. Next, play through the key of F[#] starting at the second fret. Again, make sure you connect all the patterns until you've covered the whole fretboard. Follow this procedure starting at every fret.

When you get to the key of G[#] at the fourth fret you'll be able to fit a complete pattern five before it (actually, most of pattern five will fit in the key of G). Once you get to the key of A[#] at the sixth fret you'll be able to fit a pattern five and a pattern four before it. With each key don't forget to work backward from where you start!

C Major Scale Patterns



All three circles represent the major scale pattern.
 The black and gray circles represent a reference chord shape.
 The black circles represent the root C.

F.Y.I. You'll learn in a later chapter that the major scale patterns and CAGED template can actually be combined in more ways than one. As you start using these patterns don't expect the scale to always correspond to the chord you're playing over. For example, the key of C consists of the chords C, Dm, Em, E, G and Am. The C major scale can be applied to any of these chords (even if there's no C chord present). In the coming exercises you might play the C major scale over a Dm chord, or a G major chord, etc.

C Major Scale

pattern I

The image shows the C Major Scale, pattern I, for guitar and bass. The guitar part is in treble clef, 4/4 time, and the bass part is in bass clef, 4/4 time. Both parts are in the key of C major. The guitar part starts on C4 and goes up to C5, then back down to C4. The bass part starts on C2 and goes up to C3, then back down to C2. The notation includes fingerings (0, 1, 2, 3) and a 'root' label for the starting note. The guitar part is labeled 'Gtr.' and the bass part is labeled 'Bass'.

How to Practice

Playing through major scales without any accompaniment is a little boring and doesn't sound very interesting. It's not possible to hear the melodic and harmonic characteristics of the scale unless you hear it against other notes or chords. You'll need to practice the scale patterns with a sound recording, sequencer, recording device, or a friend.

Practicing with a Sound Recording

Some common keys are listed on the next two pages along with some popular tunes that will make good accompaniment as you practice playing the major scales. There are, of course, many more songs that could have been listed for each key, but there are enough to get you started. These songs are not intended for you to learn but rather for you to use as accompaniment while playing through the scale patterns. Crank up copies of these songs and simply play through the appropriate major scale patterns. When you play along with the music the scale will come to life. With these songs you can practice in six common keys.

Practicing with a Sequencer or Recording Device

Sequencers can be used to create and loop musical passages that will make good accompaniment. Most keyboards have built-in sequencing functions. There's also a variety of computer software that can create accompaniment. A recording device can be used to record you or a friend playing rhythm in various keys for you to jam over. You should familiarize yourself with these devices as they are great tools and can accelerate your learning. When composing your accompaniment make sure to choose chords that correspond to the major scale you intend to play.

Choosing Chords

Each key, or major scale, has several chords that go along with it. The chords for each key are outlined in the song lists starting on the next page. For example, the key of C includes the chords C, Dm, Em, F, G, and Am. You can play the C major scale over any one of these chords or any combination of these chords (even if there's no C chord present). Just be sure not to mix in any other chords because they will be out of key. In other words, don't play the C major scale over a song with G, C, and D. The D chord isn't in the key of C and neither is the chord progression. Stick to the chords listed for each key. You'll discover where the chords come from in the next chapter.

Practicing with a Friend

To practice with a friend use the same instructions for playing with a sound-recording or a sequencer. Be sure that you're both tuned up and playing in the same key. If your friend is playing one of the songs listed below, then make sure the song is being played with the correct chords. If your friend is making up a chord progression, it should correspond to the key you're playing in.

Key of G (G, Am, Bm, C, D, Em)

"Ring of Fire" Johnny Cash.....
"Sweet Home Alabama" Lynyrd Skynyrd.....
"What I Got" Sublime.....
"Redemption Song" Bob Marley.....
"Wonderful Tonight" Eric Clapton.....
"Last Kiss" Pearl Jam.....
"Knockin' On Heaven's Door" Bob Dylan.....
"Good Riddance (Time of Your Life)" Green Day.....
"Every Rose Has Its Thorn" Poison.....
"Bubble Toes" Jack Johnson.....
"Hang on Sloopy" The McCoys.....
"Take it Easy" The Eagles (<i>excluding ending</i>).....
"Seven Bridges Road" The Eagles.....
"I Won't Back Down" Tom Petty.....
"Man On the Moon" R.E.M.....
"Heart of Gold" Neil Young.....
"All Summer Long" Kid Rock.....
"Werewolves of London" Warren Zevon.....
"Under the Boardwalk" The Drifters.....
"Love the Lord" Lincoln Brewster.....
"Semi-Charmed Life" Third Eyed Blind.....
"Cliffs of Dover" Eric Johnson.....
"Friend of the Devil" The Grateful Dead.....
"Don't Tell Me" Madonna.....
"Joey" Concrete Blonde.....
"Breathe" Faith Hill.....
"Who Will Save Your Soul" Jewel.....
"You Were Meant for Me" Jewel.....
"Talking About a Revolution" Tracy Chapman.....
"Blister in the Sun" Violent Femmes.....
"Closing Time" Semisonic.....

Remember, these songs are not listed here to be learned, but rather to be used as accompaniment while you practice playing major scale patterns. Most of the songs stay in key, but a few change to others (I noted this with some selections). Also, a chord progression can revolve around any chord in the key. Don't expect these songs to all be based on the first chord.

Key of A (A, Bm, C#m, D, E, F#m)

"Jack and Diane" John Mellencamp.....
"No Rain" Blind Melon.....
"Stir It Up" Bob Marley.....
"Bye Bye Love" The Everly Brothers (<i>excluding intro</i>).....
"Country Roads" John Denver (<i>excluding bridge</i>).....
"What's Up?" 4 Non Blondes.....
"Hurts So Good" John Mellencamp.....
"Stand By Me" Ben E. King.....
"Crazy Train" Ozzy Osbourne.....
"Hey Jealousy" Gin Blossoms.....
"Wonderwall" Oasis.....
"Blitzkrieg Bop" The Ramones.....
"Days of Elijah / Kadosh" Paul Wilbur (<i>Key Change!</i>).....
"If I Had \$1,000,000" Barenaked Ladies.....

Key of C (C, Dm, Em, F, G, Am)

"Like a Rolling Stone" Bob Dylan.....
"Maria Maria" Santana.....
"Mr. Jones" Counting Crows.....
"All the Small Things" Blink 182.....
"Dy'er Mak'er" Led Zeppelin.....
"Fool in the Rain" Led Zeppelin.....
"La Bamba" Los Lobos.....
"Down on the Corner" Creedence Clearwater Revival.....
"Have You Ever Seen the Rain?" Creedence Clearwater Revival.....
"Best of My Love" The Eagles (<i>excluding bridge</i>).....
"Losing Religion" R.E.M.....
"Let it Be" The Beatles.....
"Don't Fear The Reaper" Blue Oyster Cult.....
"Californication" Red Hot Chili Peppers.....
"Otherside" Red Hot Chili Peppers.....
"Dreams" Fleetwood Mac.....
"You Never Can Tell" Chuck Berry.....
"Unchained Melody" The Righteous Brothers (<i>excluding bridge</i>).....
"Lean On Me" Bill Withers.....
"Jambalaya (On The Bayou)" Hank Williams.....
"Made To Worship" Chris Tomlin.....

(Continued on next page.)

F.Y.I. "Sweet Home Alabama" breaks the rules laid out for you in that it includes a chord that is not in key with the rest of the progression. Technically the F is a key change and in situations like this the major scale needs to follow. But in this case the F only comes up a few times, each time for just one beat. Odds are that ignoring it will go unnoticed. So, go ahead and break the rules. I promise not to tell.

(More major scale keys continued.)

Key of D (D, Em, F[#]m, G, A, Bm)

"Margaritaville" Jimmy Buffet.....
"Horse with No Name" America.....
"Bad Moon Rising" Creedence Clearwater Revival.....
"Twist and Shout" The Beatles.....
"With or Without You" U2.....
"Harvest Moon" Neil Young.....
"Summer of '69" Bryan Adams (<i>excluding bridge</i>).....
"Authority Song" John Mellencamp.....
"Feliz Navidad" Jose Feliciano.....
"The First Cut Is the Deepest" Sheryl Crow.....
"Maggie May" Rod Stewart.....
"The Thrill Is Gone" B.B. King.....
"Good Lovin'" The Rascals.....
"Runaround Sue" Dion.....
"Show Me Your Glory" Third Day.....
"Jane Says" Janes Addiction.....
"Angel" Sarah McLachlan (<i>Live Version</i>).....
"Franklin's Tower" The Grateful Dead.....
"Breakfast at Tiffany's" Deep Blue Something.....
"Building a Mystery" Sarah McLachlan.....
"Take a Picture" Filter.....
"Tub Thumping" Chumbawumba.....

Key of E (E, F[#]m, G[#]m, A, B, C[#]m)

"Hit Me With Your Best Shot" Pat Benatar.....
"Beast of Burden" The Rolling Stones.....
"All Along the Watchtower" Bob Dylan.....
"Walk of Life" Dire Straits.....
"I Wanna Be Sedated" The Ramones (<i>key changes!</i>).....
"Yellow Ledbetter" Pearl Jam.....
"Open the Eyes of My Heart" Michael W. Smith.....
"Here I Am to Worship" Tim Hughes.....
"Never Let You Go" Third Eye Blind.....
"In Too Deep" Sum 41.....
"Fat Lip" Sum 41.....
"My Own Worst Enemy" Lit.....

Key of F (E, Gm, Am, B^b, C, Dm)

"The Joker" Steve Miller Band.....
"Call Me Al" Paul Simon.....
"Free Falling" Tom Petty.....
"Layla" Eric Clapton (<i>acoustic version, chorus/solo</i>).....
"Evil Ways" Santana.....
"Mr. Tambourine Man" Bob Dylan.....
"Glycerine" Bush.....
"Two Step" Dave Matthews Band.....
"Why Don't You Get a Job?" The Offspring.....

Scale Differences

If you compare the pentatonic scale to the major scale you'll notice something interesting. All of the pentatonic scale tones are in the major scale. For example, the G major scale consists of G, A, B, C, D, E, and F[#]. The G major pentatonic scale consists of G, A, B, D and E. The pentatonic scale is really just a simplified major scale. Despite this relationship, most guitarists think of the two scales and their sounds separately.

Besides having two more notes per octave than the pentatonic scales, major scales include the half-step interval and thus the half-step sound. The pentatonic scale is built of intervals at least one whole-step apart and doesn't include any of the half-step intervals from the major scale. Recognizing these characteristics will help you separate the two scales and their sounds. This will assist you in identifying and working out parts along with enabling you to retain more. You'll also have more control of your sound while applying scales to other songs or your own music.

What about Chromatic Passing Tones?

The chromatic passing tone that is added to the pentatonic scale to create the so-called "blues scale" is not an interval related to any parent major scale. Even though the "blues scale" contains half-step intervals, its construction and sound is different from the major scale.

Chromatic passing tones can also be added to the major scale. There are no other names for the scale when this occurs. Sometimes, if the right passing tone is added, and if the right scale-tones are skipped, you could have a pentatonic "blues scale" in a major scale. When you start adding and taking things away from the major scale the lines between it and the pentatonic scale can become blurred.

Songs

The list in the next column includes songs that all have a prominent major scale melody, riff, solo or bass line. The first list includes examples that use all seven major scale degrees. The second list of examples uses the major scale but not all seven degrees. You'll find examples of major scale parts with chromatic passing tones in the third list. Remember that the major scale, like any scale, can be used in any key, in any pattern or any combination thereof. Parts can start on any note. There are a lot of

examples here and you should learn several because the major scale is the most important scale in music. You don't have to learn a song in its entirety. Just focus on the major scale part.

Major Scale Songs

"Down On the Corner" Creedence Clearwater Revival.....	Gtr./Bass Intro (C)
"Cult of Personality" Living Colour.....	Gtr./Bass Riffs (C)
"Rhiannon" Fleetwood Mac.....	Gtr. Double-Stop Riff (C)
"Wild World" Cat Stevens.....	Gtr. Run During Chorus (C)
"La Bamba" Los Lobos.....	Gtr. Intro, Solos (C)
"Freewill" Rush.....	Gtr. Intro, Verse (C)
"Drops of Jupiter" Train.....	Bass (C)
"Hash Pipe" Weezer.....	Bass (C)
"Meet Virginia" Train.....	Bass (G)
"Last Kiss" Pearl Jam.....	Bass (G)
"Friend of the Devil" The Grateful Dead.....	Gtr. Intro (G)
"Centerfield" John Fogerty.....	Gtr. Intro (G)
"Island in the Sun" Weezer.....	Gtr. Solo (G)
"Broken" Seether.....	Gtr. Solo 2:35 (G)
"Godzilla" Blue Oyster Cult.....	Bass Riff (E)
"Caught Up In You" 38 Special.....	Gtr. Solo (E)
"I Love Rock 'N Roll" Joan Jett & The Blackhearts.....	Gtr. Solo (E)
"My Own Worst Enemy" Lit.....	Gtr. Solo (E)
"Fat Lip" Sum 41.....	Bass (E)
"Never Let You Go" Third Eye Blind.....	Bass (E)
"My Own Worst Enemy" Lit.....	Bass (E)
"Beast of Burden" The Rolling Stones.....	Bass (E)
"The Impression That I Get" The Mighty Mighty Bosstones.....	Bass (E)
"Mama I'm Coming Home" Ozzy Osbourne.....	Gtr. Intro (E)
"I Want Candy" Bow Wow Wow.....	Gtr. Riff (D)
"Iris" Goo Goo Dolls.....	Bass (D)
"Ants Marching" Dave Matthews Band.....	Bass (D)
"Rapper's Delight" Sugar Hill Gang.....	Bass (D)
"Lie In Our Graves" Dave Matthews Band.....	Gtr. Intro (D)
"Stay Together for the Kids" Blink 182.....	Gtr. Intro (D)
"Ventura Highway" America.....	Gtr. Intro (D)
"The First Cut is the Deepest" Sheryl Crow.....	Gtr. Solo (D)
"Third Stone from the Sun" Jimi Hendrix.....	Octave Gtr. Melody (A)
"Crazy Train" Ozzy Osbourne.....	Gtr. Riff, Bass (A)
"Long View" Greenday.....	Bass Intro, Tune Down 1/2 Step (A)
"No Rain" Blind Melon.....	Lead Gtr. Intro (A)
"Better Together" Jack Johnson.....	Gtr. Verse 0:08 (F)
"Black Magic Woman" Santana.....	Gtr. Solo (F)
"Layla (Unplugged)" Eric Clapton.....	Gtr. Solo (F)
"Sultans of Swing" Dire Straits.....	Bass (F)
"The Man Who Sold the World" Nirvana.....	Bass Runs During Chorus (F)
"Smells Like Teen Spirit" Nirvana.....	Gtr. Solo (Ab)
"Satellite" Dave Matthews Band.....	Gtr. Intro, Bass (Ab)
"ATWA" System of a Down.....	Gtr. Intro (Ab)
"Ariels" System of a Down.....	Gtr. Intro (Eb)
"Europa" Santana.....	Gtr. Solo (Eb)
"Don't Speak" No Doubt.....	Gtr. Solo (Eb)
"Flavor of the Weak" American Hi-Fi.....	Gtr. Solo (Bb)
"Immigrant Song" Led Zeppelin.....	Bass Chorus (various keys)
"Silent Night".....	Vocal Melody (Any Key)
"Happy Birthday".....	Vocal Melody (Any Key)

Major Scale (Not All Seven Degrees)

"China Cat Sunflower" The Grateful Dead.....	Lead Gtr. Melody (C)
"Lowrider" War.....	Horn Melody (C)
"All the Small Things" Blink 182.....	Octave Gtr. Melody (C)
"Redemption Song" Bob Marley.....	Gtr. Intro (G)
"Dueling Banjos" Eric Weissberg & Steve Mandell.....	Gtr., Capo II (G)
"Sweet Child O' Mine" Guns & Roses.....	Gtr. Intro, Tune Down 1/2 Step (G)
"Ramblin' Man" The Allman Brothers Band.....	Gtr. Intro, Tune Up 1/2 Step (G)
"Last Resort" Papa Roach.....	Gtr. Riff (G)
"Oh, Pretty Woman" Roy Orbison/Van Halen.....	Gtr. Riff (A)
"Photograph" Weezer.....	Gtr. Solo (A)
"Buddy Holly" Weezer.....	Gtr./Vocal Melody, Tune Down 1/2 Step (A)
"Every Morning" Sugar Ray.....	Gtr. Intro, Tune Down 1/2 Step (A)
"Stand by Me" Ben E. King.....	Bass (A)
"The Joker" Steve Miller Band.....	Gtr. & Bass Riff (F)
"Layla" Derek & The Dominos.....	Rhy. & Lead Gtr. Intro (F)
"Schism" Tool.....	Bass Intro & Riff (F)
"Show Me the Way" Peter Frampton.....	Gtr. Melody (D)
"Back on the Chain Gang" The Pretenders.....	Gtr. Melody (D)
"In Too Deep" Sum 41.....	Gtr. Intro (E)
"Sweet Dreams" Marilyn Manson.....	Gtr. Riff (Eb)
"The Kids Aren't Alright" The Offspring.....	Gtr. Intro (Db)

Various patterns, including pattern combinations, are used in different songs. Parts can start on any note.

Major Scale (Chromatic Passing Tones)

"I Want You Back" The Jackson 5.....	Bass (Ab)
"Brown Eyed Girl" Van Morrison.....	Bass (G)
"Hit Me With Your Best Shot" Pat Benatar.....	Gtr. Solo (E)
"Walk Don't Run" The Ventures.....	Gtr. Melody (C)
"In the Light" Led Zeppelin.....	Clavinet Run (C)

Various patterns, including pattern combinations, are used in different songs. Parts can start on any note.

Conclusion

Congratulations! Now you know the most important scale in music, and how to play it in any key and in any position. Playing the major scale over the songs from the six most common keys gives you the ability to create spontaneous improvisations around the whole fretboard. The song melodies, riffs and bass lines that you learned will give you plenty of lick and phrasing ideas to use in your own playing. Here's a tip: Try taking a major scale part from one song, transposing it, and playing it over a completely different song in another key.

Talk to Me

Have any questions or comments about this chapter? Are there other song references that you think make good examples? I want to hear from you! Contact me through my web site: <http://Guitar-Music-Theory.com>

Chapter 6

Chord Progressions and Playing by Numbers

About This Chapter

In this section you'll learn how to stack the notes of the major scale to build chords. You'll learn that every key consists of six commonly used chords that can easily be found with a simple pattern and recognized by number. You'll also learn about progressions and how they relate to popular music. This chapter also serves as an introduction to intervals.

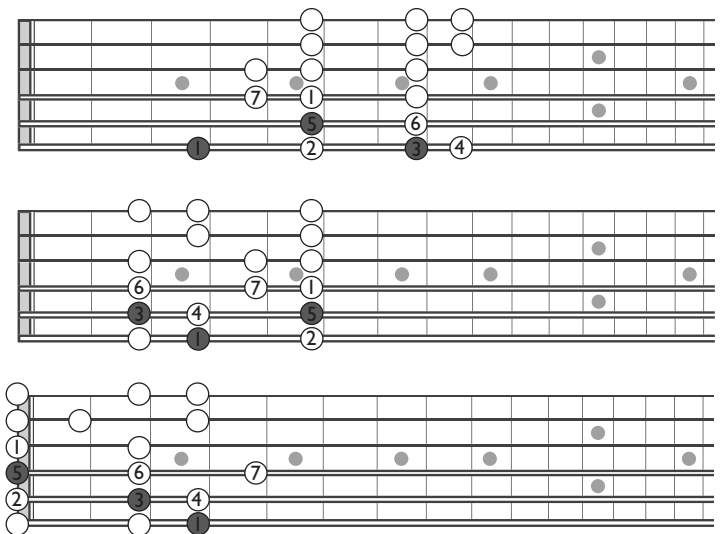
Topics Covered

1. Triads
2. Chord construction
3. Intro to intervals
4. Major scale chord pattern
5. Playing by numbers (Nashville Numbers)
6. Progressions

Triads

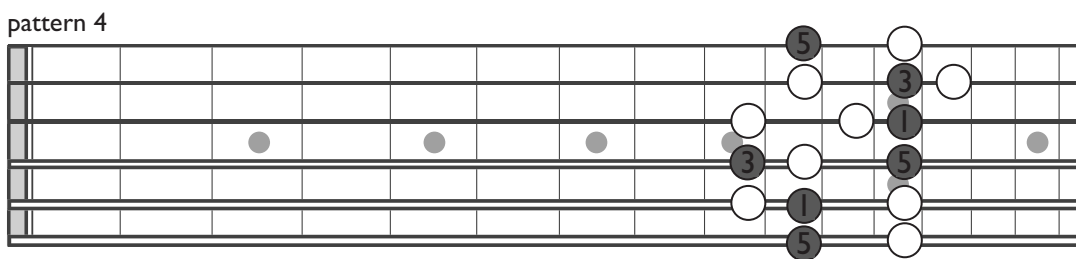
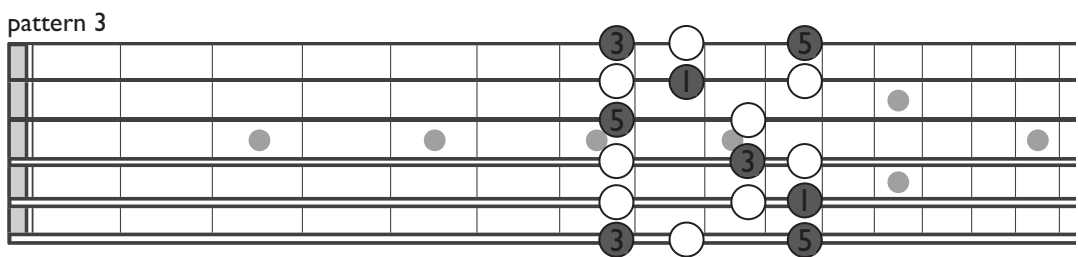
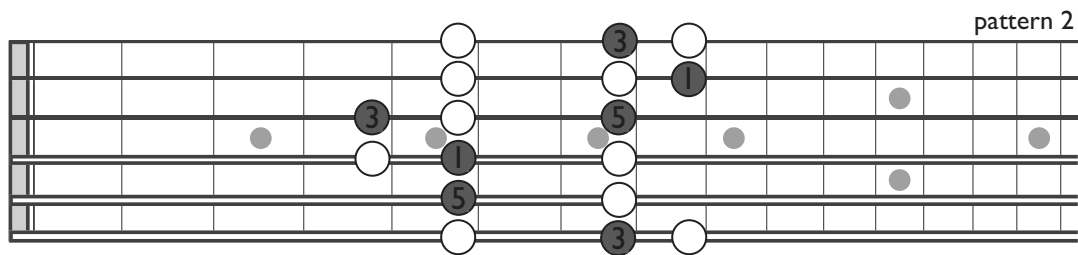
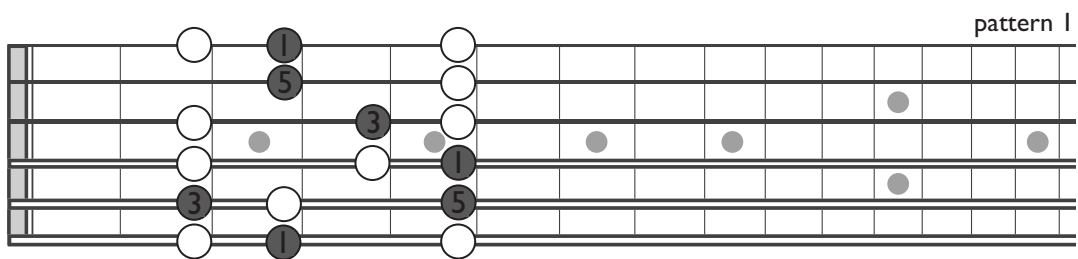
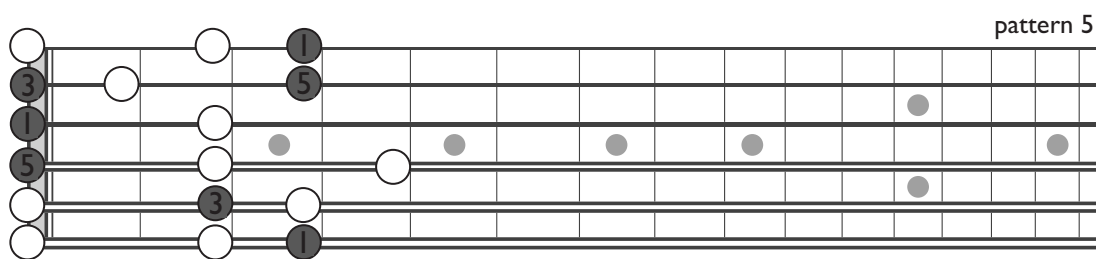
Triads are the most fundamental chords and, as their name suggests, they consist of three notes. Triads are built by stacking every other note of the major scale. For example, if you want to build a triad for the first note, then you play it together with the third and fifth scale degrees.

This is illustrated below using the **G** major scale. The first note in a triad is referred to as the root and represented in the diagram by the number 1. The other intervals are referred to as the third and the fifth, and are represented by the numbers 3 and 5. The triad is illustrated in a few different scale patterns in order for you to see the different ways these same three notes can be arranged on the fretboard.



When you play these notes simultaneously, the harmonized sound you hear is a G major chord. The root is G, the 3rd is B and the 5th is D. These three notes are scattered all around the fretboard and can be combined, in any order, to make a G major chord. It doesn't matter in what octave the intervals occur, or if an interval repeats, as long as there's at least one occurrence of each note.

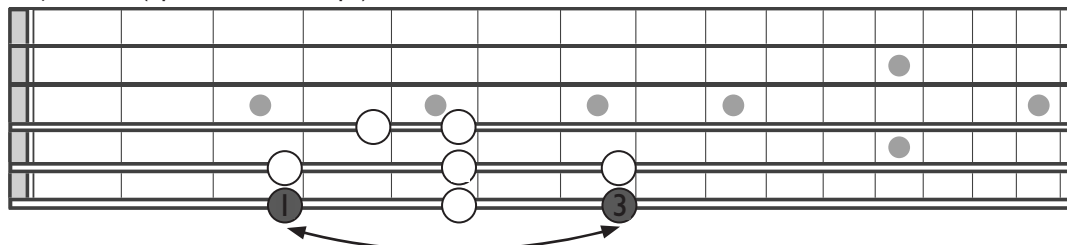
The next group of diagrams illustrate all the major chord forms. This is the CAGED chord template you learned in Chapter 3 and the major scale patterns you learned in Chapter 5. Notice how the triad intervals combine a little differently in each form. It's not necessary to memorize the position of the intervals in this example. Just take a look at the numbers to get an idea of how things fit.



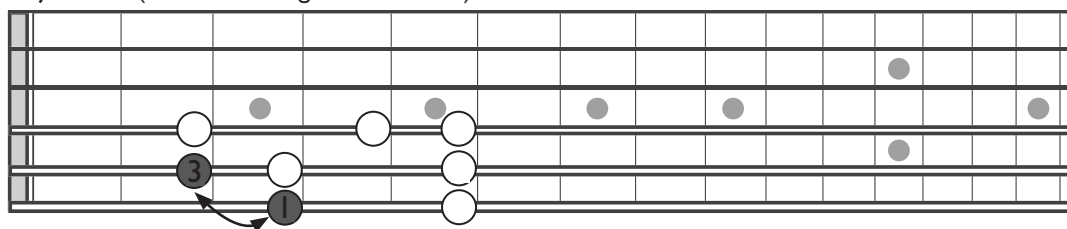
Major Third

In the diagrams below, notice how the third is two whole-steps above the root. This distance, or interval, is known as a major third (or simply, third). This interval can also be found by moving over one string and back one fret.

Major third (up two whole-steps)



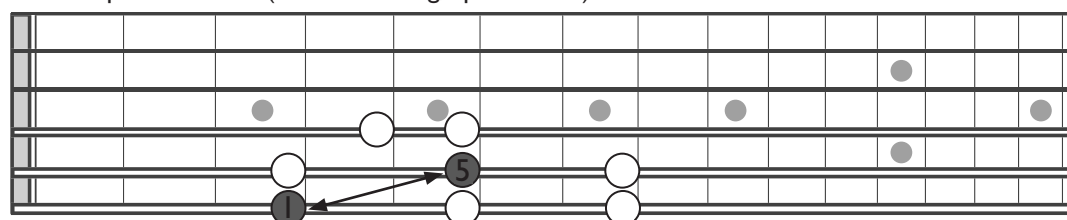
Major third (over one string, back one fret)



Perfect Fifth

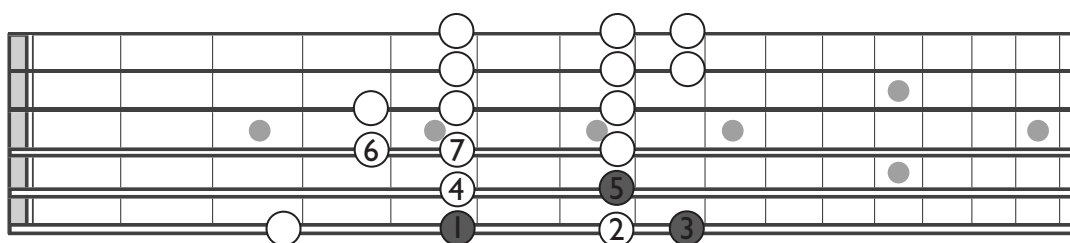
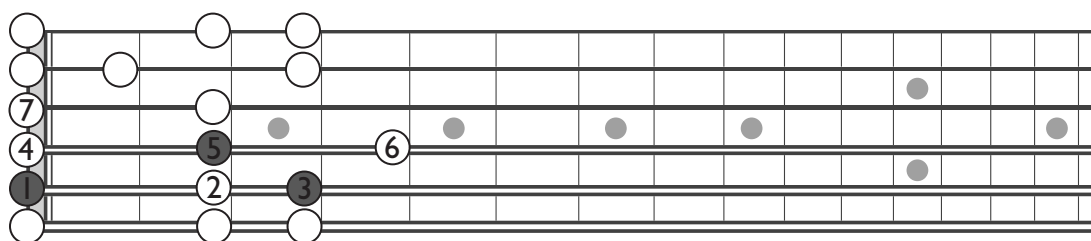
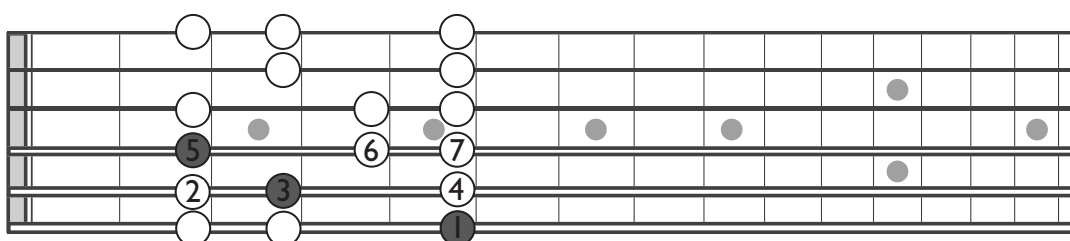
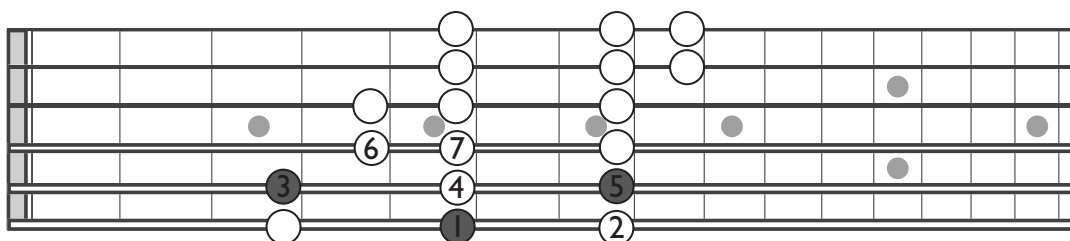
In the diagram below, notice how the fifth interval, in combination with the root, makes the so-called “power chord.” Chords are built from three notes. A power chord is technically not a full chord because it doesn’t contain the third interval. It contains only the root and fifth intervals. This is represented in music by writing the root followed by the number five. For example, a G power chord is written as G⁵. A chord written simply as G implies a full major chord with all three intervals usually present.

Fifth or “power chord” (over one string, up two frets)



Minor Triad

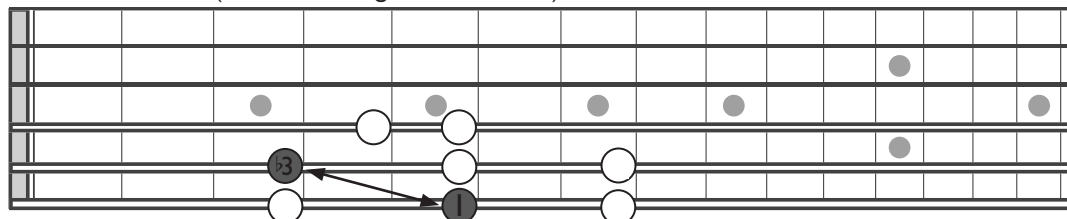
The diagrams below show you how to build a triad for the second note in the G major scale. *Don't switch keys!* You're still using the G major scale patterns. You're simply building a triad by starting from the second scale degree. A is now counted as the root, C is the third and E is the fifth. This triad is a little different from the last.



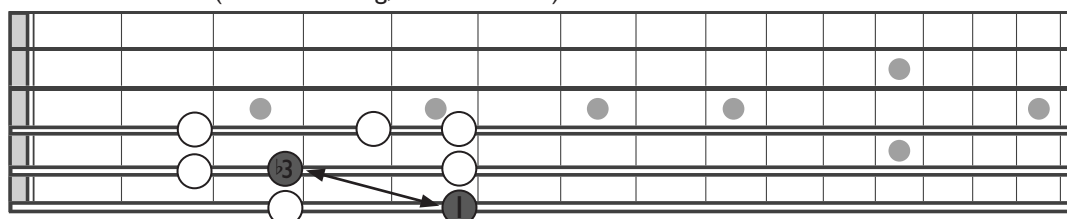
When you compare the G triad to this new A triad you'll notice that the fifth intervals look the same but the third intervals are different. G's third was two whole-steps, but A's third is only a step-and-a-half. The distance between G and its third is greater than that of A and its third. As we say in music, the distance between G and its third is a major difference. The distance between A and its third is a minor difference.

The minor third interval is also referred to as a flat third because it's one fret lower than a major third. This is written as a number three preceded by a flat sign ($\flat 3$). This interval also occurs when you move over one string and back two frets as shown in the diagrams below.

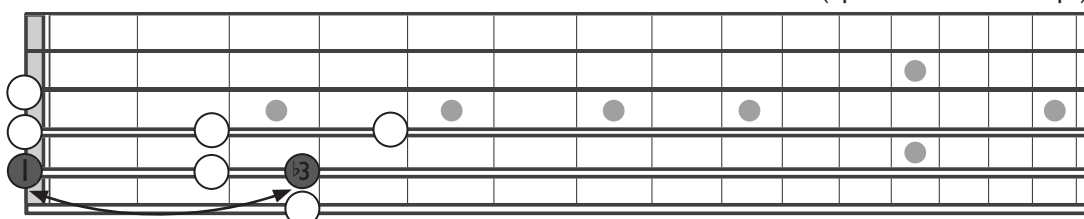
minor or flat third (over one string, back two frets)



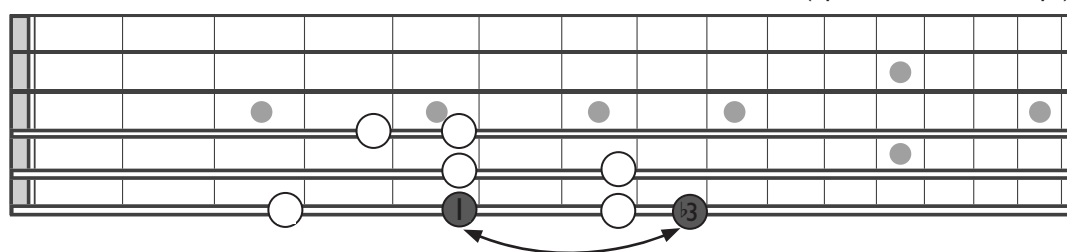
minor or flat third (over one string, back two frets)



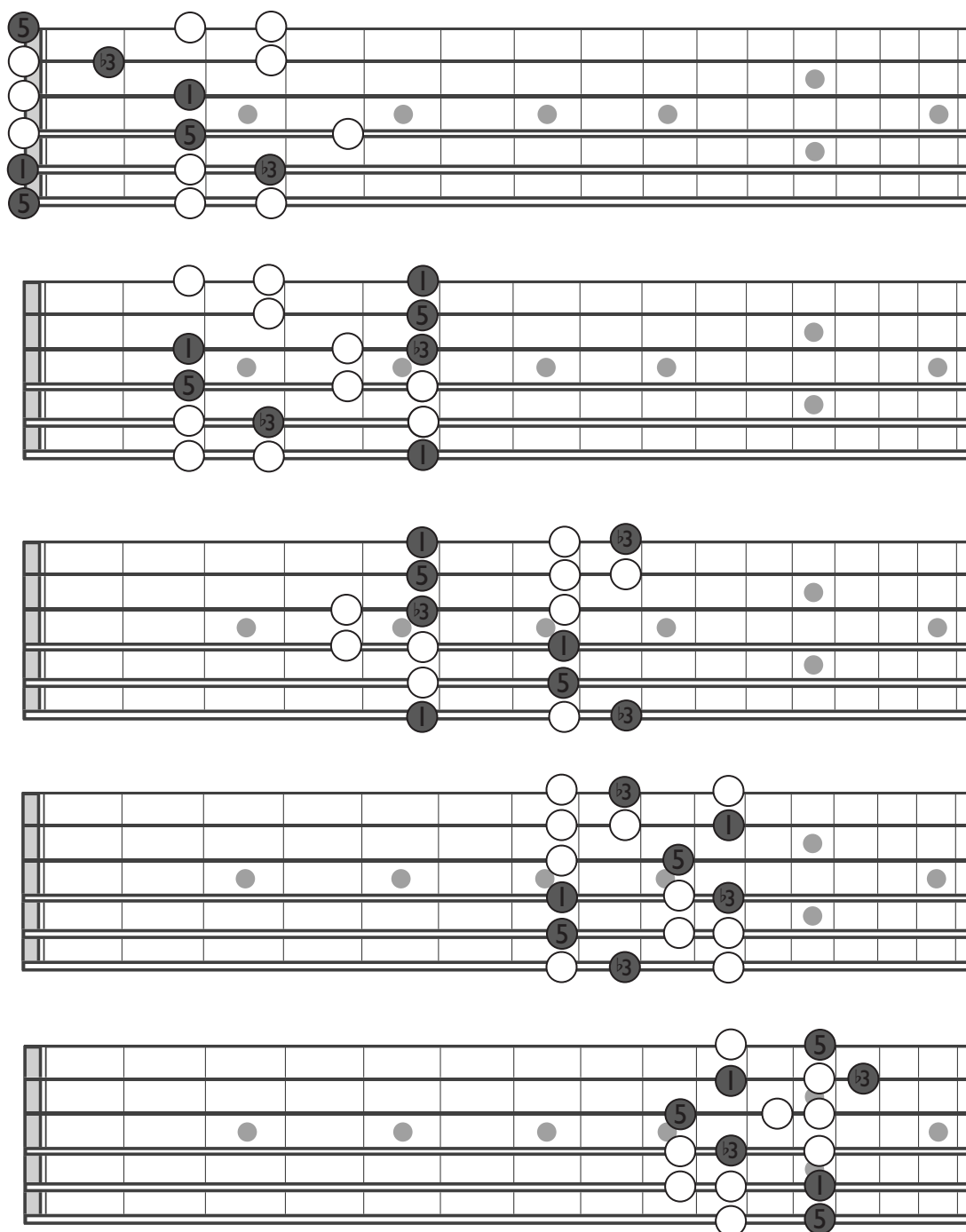
minor or flat third (up one-and-a-half-steps)



minor or flat third (up one-and-a-half-steps)

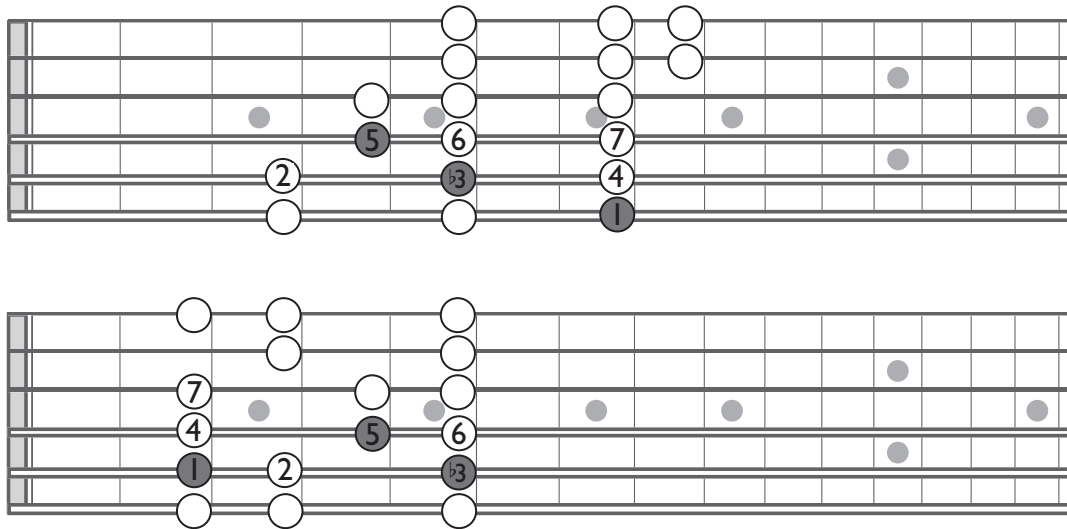


G's third is major and the result is a happy sounding major chord. A's third is minor and the result is a darker, sadder sounding minor chord. The diagrams below illustrate all the minor chord forms. This is the minor CAGED template you learned in Chapter 4 and the major scale patterns you learned in Chapter 5. Notice how the triad intervals combine a little differently in each form. It's not necessary to memorize the position of the intervals in this example. Just take a look at the numbers to get an idea of how things fit.



Moving On

Now try building a triad starting from the third scale degree B. Remember, you're still in the G major scale! You're just starting to count from the third scale degree B. The result is a root, minor third and another perfect fifth. You're probably catching on by now but here are a few examples to help you on your way.



No more diagrams for the next three triads! You can build them on your own. The results should be:

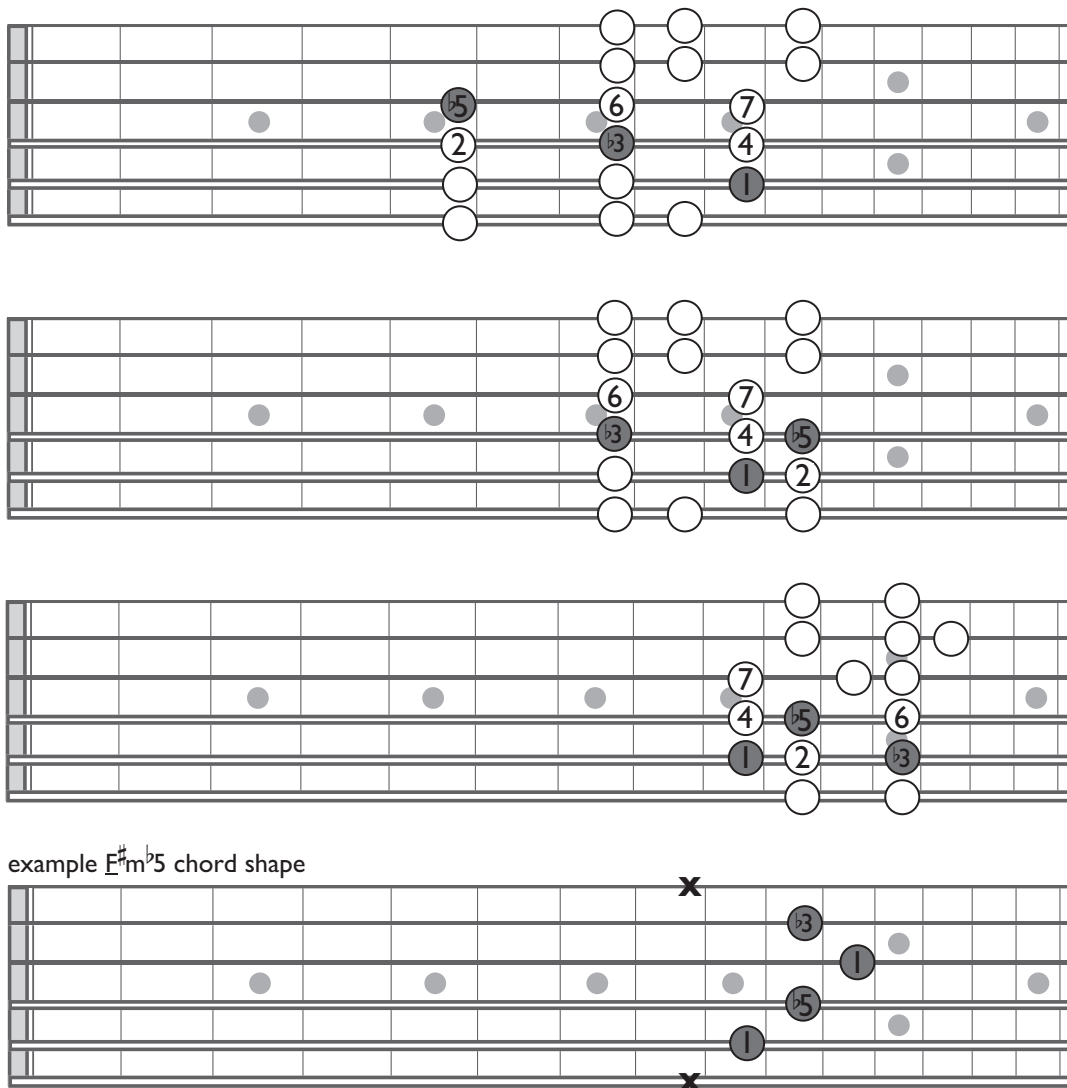
- C major triad starting from the fourth scale degree
- D major triad starting from the fifth scale degree
- E minor triad starting from the sixth scale degree

As you build these triads compare them to the first few you built. Each triad can be arranged in three different shapes on the fretboard. Work them all out on your own. When you finish building each triad, play all three intervals together and analyze a few common chord forms in order to understand how things fit. Bass players can transpose these intervals up an octave or two while playing them simultaneously. If bass players play chords in a low octave, then they'll sound very muddy.

Flat Fifth

When building a triad for the seventh scale degree, $\text{F}\sharp$, the third interval is minor. The fifth interval is unlike all the other triads in that it's one fret lower. This unusual interval is called a flat fifth ($\flat 5$). The result is a chord called $\text{F}\sharp\text{minor}\flat 5$ (sounds serious doesn't it?). The flat five interval is never referred to as a minor fifth because only a third interval can determine whether a chord has a major or minor tonality.

This chord is rarely used in popular music. It's more common in jazz where it's played with a seventh interval. One way you can play $\text{F}\sharp\text{minor}\flat 5$ is shown below. You may find it interesting and it completes the scale.



Practice

Congratulations! You've successfully completed building triads for the entire G major scale (feels good doesn't it?). Take a few minutes and review playing the triads for all seven scale degrees in order, forward and backward. The example below shows you one way to do this. This exercise is extremely valuable to bass players.

Major Scale Triads

Key of G

The image displays two systems of musical notation for triads in the key of G major. Each system consists of a treble and bass staff with a grand staff (Tenor and Bass) below. The first system covers the forward sequence (G to G), and the second system covers the backward sequence (G to G). Triad diagrams are provided for each chord, showing fingerings for the Tenor (T), Alto (A), and Bass (B) positions.

Forward Sequence (System 1):

- G:** Treble: G4, A4, B4; Bass: G3, A3, B3; Diagram: T(3) 2 5, A(5) 3 7, B(7) 5 9
- Am:** Treble: A4, B4, C5; Bass: A3, B3, C4; Diagram: T(5) 3 7, A(7) 5 9, B(3) 2 5
- Bm:** Treble: B4, C5, D5; Bass: B3, C4, D4; Diagram: T(7) 5 9, A(3) 2 5, B(5) 4 7
- C:** Treble: C5, D5, E5; Bass: C4, D4, E4; Diagram: T(5) 4 7, A(7) 5 9, B(9) 7 10
- D:** Treble: D5, E5, F#5; Bass: D4, E4, F#4; Diagram: T(7) 5 9, A(9) 7 10, B(10) 9 12
- Em:** Treble: E5, F#5, G5; Bass: E4, F#4, G4; Diagram: T(9) 7 10, A(10) 9 12, B(7) 5 9
- F#m^{b5}:** Treble: F#5, G5, A5; Bass: F#4, G4, A4; Diagram: T(7) 5 9, A(9) 7 10, B(10) 9 12
- G:** Treble: G5, A5, B5; Bass: G4, A4, B4; Diagram: T(9) 7 10, A(10) 9 12, B(7) 5 9

Backward Sequence (System 2):

- G:** Treble: G5, F#5, E5; Bass: G4, F#4, E4; Diagram: T(12) 9 10, A(10) 7 9, B(9) 5 7
- F#m^{b5}:** Treble: F#5, E5, D5; Bass: F#4, E4, D4; Diagram: T(9) 5 7, A(7) 4 5, B(5) 2 3
- Em:** Treble: E5, D5, C5; Bass: E4, D4, C4; Diagram: T(5) 2 3, A(9) 5 7, B(7) 3 5
- D:** Treble: D5, C5, B4; Bass: D4, C4, B3; Diagram: T(5) 2 3, A(9) 5 7, B(7) 3 5
- C:** Treble: C5, B4, A4; Bass: C4, B3, A3; Diagram: T(5) 2 3, A(9) 5 7, B(7) 3 5
- Bm:** Treble: B4, A4, G4; Bass: B3, A3, G3; Diagram: T(7) 3 5, A(5) 2 3, B(9) 5 7
- Am:** Treble: A4, G4, F#4; Bass: A3, G3, F#3; Diagram: T(7) 3 5, A(5) 2 3, B(9) 5 7
- G:** Treble: G4, F#4, E4; Bass: G3, F#3, E3; Diagram: T(7) 3 5, A(5) 2 3, B(9) 5 7

You can build triads for any major scale, in any key. Since the interval structure of the major scale remains the same, regardless of key, the triads are always the same too. In other words, the triad for the first scale degree is always major, the second is always minor, etc.

Bass Players

Bass players don't really play full chords although bass lines are always based on chords. Good bass players know not only the roots to chords, but also the additional intervals and how to compose their parts with these notes in mind. Bass players think more in terms of triad shapes and arpeggio patterns rather than chord forms because they're not concerned with combining notes and playing them simultaneously.

Triad Songs

The following songs all utilize, among other things, the triad shapes that result from stacking the major scale. Most of these examples are for the bass but guitar players should learn them too. The major triads are used a lot more than the minor triads in these examples.

Triads

"Centerfield" John Fogerty.....	<i>Gtr. Intro</i>
"Tightrope" Stevie Ray Vaughan & Double Trouble.....	<i>Gtr. Riff</i>
"Manic Depression" Jimi Hendrix.....	<i>Gtr. E♭ Bass</i>
"Online Songs" Blink 182.....	<i>Gtr. 0:20</i>
"O-Bla-Di-O-Bla-Da" The Beatles.....	<i>Bass</i>
"Stir It Up" Bob Marley & The Wailers.....	<i>Bass</i>
"California Girls" The Beach Boys.....	<i>Bass</i>
"Come Together" The Beatles.....	<i>Bass</i>
"Crush 'Em" Megadeth.....	<i>Bass</i>
"Eight Days a Week" The Beatles.....	<i>Bass</i>
"Hound Dog" Elvis Presley.....	<i>Bass</i>
"The Impression That I Get" The Mighty Mighty Bosstones.....	<i>Bass</i>
"Rock Around the Clock" Bill Haley & His Comets.....	<i>Bass</i>
"Surfin' U.S.A." The Beach Boy.....	<i>Bass</i>
"That'll Be the Day" Buddy Holly & The Crickets.....	<i>Bass</i>
"That's All Right" Elvis Presley.....	<i>Bass</i>
"Rockin' Robin" Bobby Day.....	<i>Bass</i>
"Lit Up" Buck Cherry.....	<i>Bass</i>
"Light My Fire" The Doors.....	<i>Bass</i>

Major Scale Chord Sequence

After examining the triads that resulted from harmonizing the major scale you can determine a sequence of major and minor chord qualities.

Scale Degree and Chord Quality

1. Major

2. minor

3. minor

4. Major

5. Major

6. minor

7. minor flat five

Roman Numerals (Nashville Number System)

Sometimes referred to as the Nashville Number System, this major/minor sequence can be better represented in musical terms by using Roman numerals. Upper case Roman numerals represent major chords. Lower case Roman numerals represent minor chords. Since the minor flat five chord is rarely used, leave it out in order to focus on the important chords. The result is the following Roman numerals I ii iii IV V vi.

I Major

ii minor

iii minor

IV Major

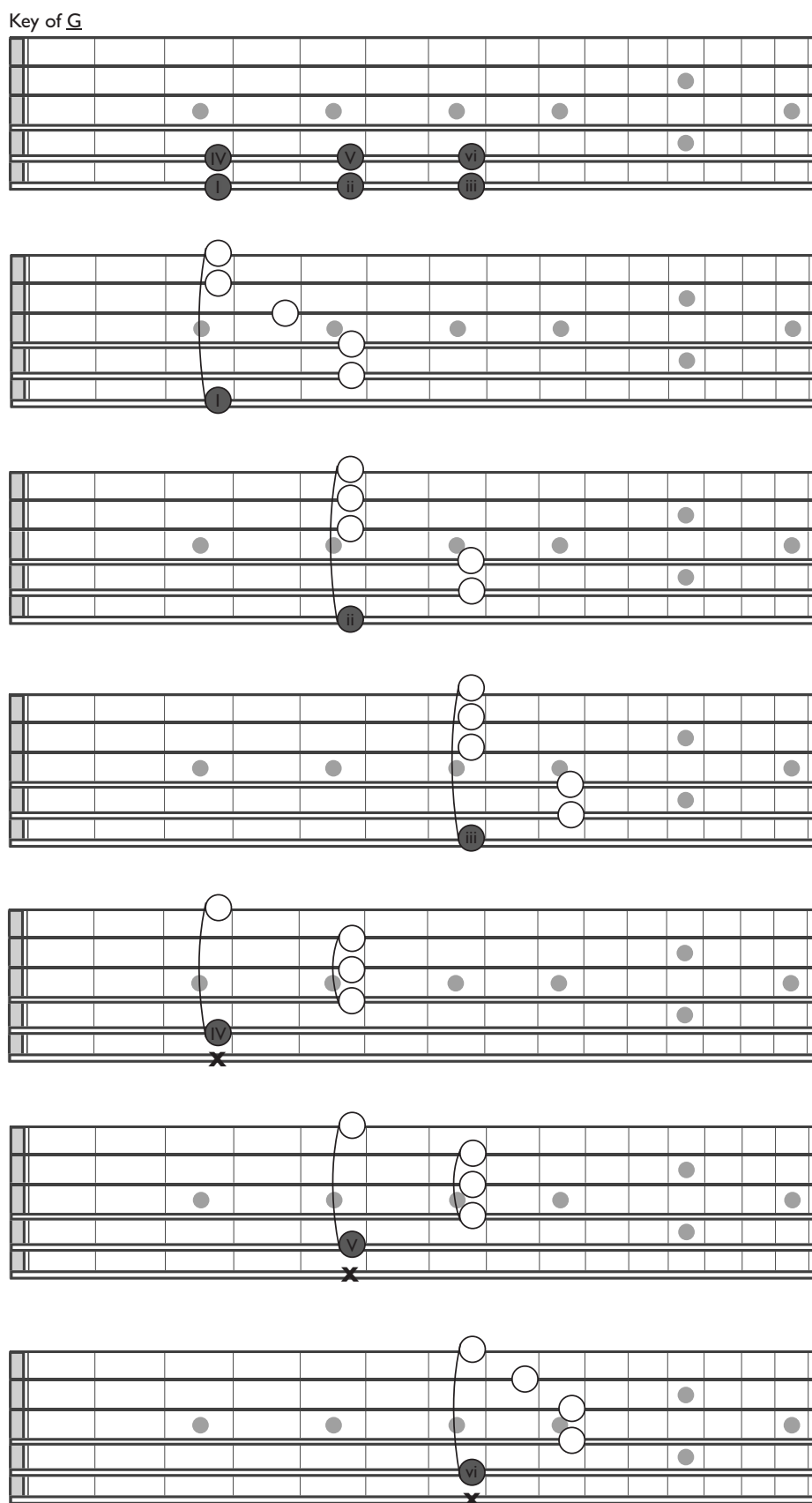
V Major

vi minor

This is arguably the most important sequence in music. All of the popular music you listen to and play is either directly in this sequence or thought of in relation to it. For this reason it should be completely memorized.

Play by Numbers

The only way for guitarists to truly benefit from this number sequence is to visualize how it lays out on the fretboard. You can begin by playing common barre chords for each scale degree. Don't worry about the notes. Focus all your attention on the numbers I ii iii IV V vi and the chord quality (major/minor). The following diagrams illustrate how to visualize and play by numbers in the key of G. Notation is available on the next page.



Major Scale Chord Pattern

Key of G

Diagram illustrating the Major Scale Chord Pattern in the Key of G (4/4 time signature).

The diagram shows the chord sequence for the major scale: I, ii, iii, IV, V, vi.

Chord Diagrams:

- I (G Major):** Treble clef, G4, B4, D5.
- ii (A minor):** Treble clef, A4, C5, E5.
- iii (B minor):** Treble clef, B4, D5, F5.
- IV (D Major):** Treble clef, D5, F5, A5.
- V (E Major):** Treble clef, E5, G5, B5.
- vi (F# minor):** Treble clef, F#5, A5, C6.

"E form" barre chord:

Chord	3	5	7
T	3	5	7
A	4	5	7
B	5	7	9
	3	5	7

"A form" barre chord:

Chord	3	5	7
T	3	5	7
A	4	5	7
B	5	7	9
	3	5	7

Bass Line:

The bass line shows the scale notes in G major: G, A, B, C, D, E, F#, G. The fret numbers for the bass line are: 3, 2, 5, 5, 3, 7, 7, 5, 9, 3, 2, 5, 5, 4, 7, 7, 5, 9.

Diagram 4:

Diagram 4 shows the continuation of the Major Scale Chord Pattern, starting from the vi chord (F# minor) and moving through V (E Major), IV (D Major), iii (B minor), ii (A minor), and I (G Major).

Chord Diagrams:

- vi (F# minor):** Treble clef, F#5, A5, C6.
- V (E Major):** Treble clef, E5, G5, B5.
- IV (D Major):** Treble clef, D5, F5, A5.
- iii (B minor):** Treble clef, B4, D5, F5.
- ii (A minor):** Treble clef, A4, C5, E5.
- I (G Major):** Treble clef, G4, B4, D5.

Bass Line:

The bass line shows the scale notes in G major: G, A, B, C, D, E, F#, G. The fret numbers for the bass line are: 9, 5, 7, 7, 4, 5, 5, 2, 3, 9, 5, 7, 5, 3, 7, 3, 2, 5.

Practice

This number pattern is easy to visualize because everything lines up neatly on the fretboard. Chords I, ii, and iii are on string six, and chords IV, V, and vi are on string five in the same frets. Play through the whole pattern forward and backward several times while calling out each number as it's played. Try playing just the major chords in various orders then do the same for the minor chords. Finish up by jumping from string six to string five and playing the chords in orders like I IV, ii V, iii vi and vi iii, V ii, IV I.

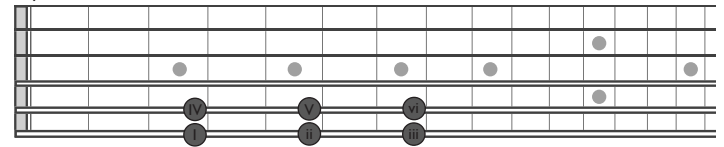
Transposing

This pattern is illustrated in the key of G but the chord sequence remains the same regardless of the key. Every key may have different notes but the intervals and chord qualities never change. For this reason, it's much easier to think of chord progressions by numbers rather than notes.

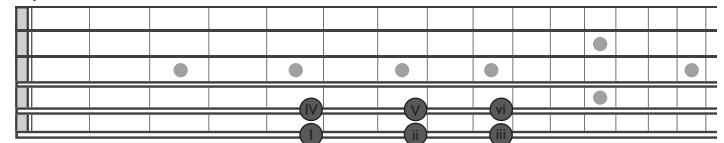
You can transpose to new keys simply by duplicating this pattern in other positions. The first chord always determines the key. If you start at the fifth fret, then you'll have all the chords in the key of A. If you start at the seventh fret, then you'll have all the chords in the key of B, etc. You can even start with the open sixth string. This will give you the key of E. In this position both the I and IV chords end up being played as open forms.

You should spend time playing by numbers in various keys. For now, simply stick with the two common barre chord forms illustrated for you. You can work in other chord forms later on your own.

Key of G



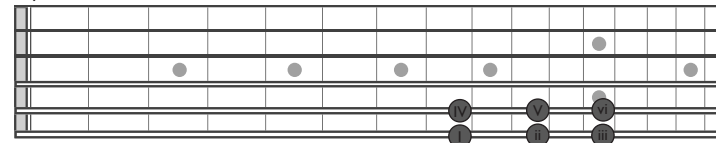
Key of A



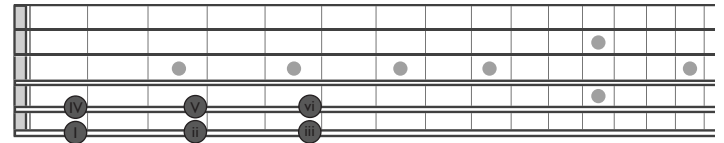
Key of B



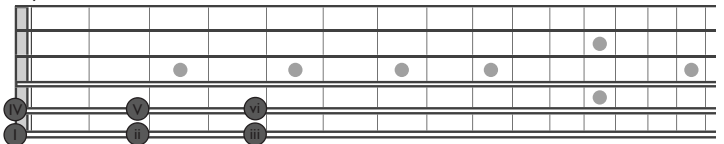
Key of C



Key of E



Key of E



The Major Chords: I IV V

A lot of popular music is based on the major chords I, IV and V. The simpler the song, the more likely the progression boils down to these chords. The simplest progression is simply I V (isn't that simply super). "You Never Can Tell" by Chuck Berry, "Jambalaya" by Hank Williams and "Achy Breaky Heart" by Billy Ray Cyrus are a few examples that use just these two chords. The list coming up includes songs that are based on all three major chords. Musicians who are familiar with these sure-to-show-up chords are the ones who can anticipate the changes of a song the first time through. Knowing where to look sure makes things easier.

Playing Songs by Number

The first list at right includes songs based on the pattern you just learned, starting with the major chords I, IV, and V (1 4 5). These songs are all in different keys and have slightly different progressions but they all can be played with the common barre chords you used to build the chord pattern (even though the actual guitar parts may be played differently). Some of these examples don't start on chord I. Some of the songs use power chords rather than full major and minor barre chords, as is often the case in rock music. It's not uncommon for a song to change keys, especially during a bridge. Don't expect all of the tunes to remain in the same key they start in.

You don't need to learn these songs note for note. Just learn the basic changes and play along using the chord pattern you now know. The best way to practice these songs is to call out each chord in the progression *by number* as you play it. For example, "Wild Thing" uses the chords A, D and E, which are I, IV and V in the key of A. As you strum say to yourself "One...Four...Five...Four...etc."

Adding Minor Chords

The second list includes songs that incorporate the minor chords, ii, iii and vi (2 3 6). As with all the chord progression song references, take things as far as you can on your own after I get you started. In other words, you may be able to figure out a song's chorus even though I only noted the verse. Just focus on what fits into the chord pattern. Don't worry about the other stuff yet.

Songs Based on I IV V

"Achy Breaky Heart" Billy Ray Cyrus.....	Whole Song! <u>I</u> <u>V</u> (<u>A</u>)
"Sweet Home Alabama" Lynyrd Skynyrd.....	Nearly Whole Song! <u>V</u> <u>I</u> <u>V</u> <u>I</u> (<u>G</u>)
"All Summer Long" Kid Rock.....	Whole Song! <u>V</u> <u>I</u> <u>V</u> <u>I</u> (<u>G</u>)
"Werewolves of London" Warren Zevon.....	Whole Song! <u>V</u> <u>I</u> <u>V</u> <u>I</u> (<u>G</u>)
"Magic Carpet Ride" Steppenwolf.....	Verse <u>V</u> <u>I</u> <u>V</u> <u>I</u> (<u>G</u>)
"Seven Bridges Road" The Eagles.....	Verse/Chorus <u>V</u> <u>I</u> <u>V</u> <u>I</u> (<u>G</u>)
"Taking Care of Business" Bachman-Turner Overdrive.....	Verse/Chorus <u>V</u> <u>I</u> <u>V</u> <u>I</u> (<u>F</u>)
"Brown Eyed Girl" Van Morrison.....	Verse <u>I</u> <u>I</u> <u>V</u> <u>I</u> <u>V</u> (<u>G</u>)
"Hang on Sloopy" The McCoys.....	Whole Song! <u>I</u> <u>I</u> <u>V</u> <u>V</u> <u>I</u> <u>V</u> (<u>G</u>)
"Stir It Up" Bob Marley.....	Whole Song! <u>I</u> <u>I</u> <u>V</u> <u>V</u> (<u>A</u>)
"What I Like About You" The Romantics.....	Nearly Whole Song! <u>V</u> <u>I</u> <u>I</u> <u>V</u> <u>I</u> (<u>A</u>)
"Brimful of Asha" Corner Shop.....	Verse/Chorus <u>I</u> <u>V</u> <u>I</u> <u>V</u> (<u>A</u>)
"Wild Thing" The Troggs.....	Chorus <u>I</u> <u>I</u> <u>V</u> <u>V</u> <u>I</u> <u>V</u> (<u>A</u>)
"Walking On Sunshine" Katrina & The Waves.....	Verse <u>I</u> <u>I</u> <u>V</u> <u>V</u> <u>I</u> <u>V</u> (<u>Bb</u>)
"Twist and Shout" The Isley Brothers.....	Whole Song! <u>I</u> <u>I</u> <u>V</u> <u>V</u> (<u>F</u>)
"Are You Jimmy Ray?" Jimmy Ray.....	Verse/Chorus <u>V</u> <u>I</u> <u>V</u> <u>I</u> <u>V</u> (<u>F</u>)
"Give Me One Reason" Tracy Chapman.....	Verse <u>I</u> <u>I</u> <u>V</u> <u>V</u> (<u>F#</u>)
"Me and Bobby McGee".....	(<u>G</u> , <u>B</u>)
"Bye Bye Love" The Everly Brothers excluding intro.....	(<u>A</u>)
"When The Sun Goes Down" Kenny Chesney.....	(<u>A</u>)
"Barbara Ann" The Beach Boys.....	(<u>B</u>)
"Mr. Tambourine Man" Bob Dylan.....	(<u>F</u>)
"Volcano" Jimmy Buffet.....	(<u>F</u>)
"The Joker" Steve Miller Band.....	(<u>F</u>)
"Why Don't You Get a Job?" The Offspring.....	(<u>F</u>)
"Walk of Life" Dire Straits.....	(<u>E</u>)
"I Wanna Be Sedated" The Ramones.....	(<u>E</u>)
"I Love Rock 'N Roll" Joan Jett & The Blackhearts.....	(<u>E</u>)
"I Wanna Be Sedated" The Ramones.....	(<u>E</u> , <u>F#</u>)

Songs With ii iii vi

"I'm Yours" Jason Mraz.....	<u>I</u> <u>V</u> <u>vi</u> <u>IV</u> (<u>B</u>)
"Country Roads" John Denver.....	Chorus <u>I</u> <u>V</u> <u>vi</u> <u>IV</u> (<u>A</u>)
"You Are God Alone" Billy Foote & Cindy Foote.....	Chorus <u>I</u> <u>V</u> <u>vi</u> <u>IV</u> (<u>Ab</u>)
"When I Come Around" Greenday.....	<u>Eb</u> Tuning, <u>I</u> <u>V</u> <u>vi</u> <u>IV</u> (<u>G</u>)
"Glycerine" Bush.....	<u>I</u> <u>V</u> <u>vi</u> <u>IV</u> (<u>F</u>)
"Hurts So Good" John Mellencamp.....	Verse <u>I</u> <u>V</u> <u>vi</u> <u>IV</u> (<u>A</u>)
"What's My Age Again?" Blink 182.....	<u>Eb</u> Tuning, Verse <u>I</u> <u>V</u> <u>vi</u> <u>IV</u> (<u>G</u>)
"Love the Lord" Lincoln Brewster.....	Verse <u>I</u> <u>V</u> <u>vi</u> <u>iii</u> <u>IV</u> , <u>V</u> <u>I</u> <u>V</u> <u>I</u> (<u>G</u>)
"Heaven" Los Lonely Boys.....	<u>Eb</u> Tuning, <u>I</u> <u>ii</u> (<u>G</u>)
"What's Up?" 4 Non Blondes.....	<u>I</u> <u>ii</u> (<u>A</u>)
"My Own Worst Enemy" Lit.....	Chorus <u>I</u> <u>ii</u> <u>IV</u> <u>V</u> (<u>E</u>)
"Online Songs" Blink 182.....	Intro/Verse <u>I</u> <u>ii</u> <u>IV</u> <u>V</u> (<u>A</u>)
"Closing Time" Semisonic.....	<u>I</u> <u>V</u> <u>ii</u> <u>IV</u> (<u>G</u>)
"Allstar" Smash Mouth.....	<u>Eb</u> Tuning, <u>I</u> <u>V</u> <u>ii</u> <u>IV</u> (<u>G</u>)
"Earth Angel (Will You Be Mine)" The Penguins.....	<u>I</u> <u>vi</u> <u>IV</u> <u>V</u> (<u>Bb</u>)
"Every Breath You Take" The Police.....	<u>I</u> <u>vi</u> <u>IV</u> <u>V</u> (<u>Ab</u>)
"Stand by Me" Ben E. King.....	<u>I</u> <u>vi</u> <u>IV</u> <u>V</u> (<u>A</u>)
"Hit Me With Your Best Shot" Pat Benatar.....	Chorus <u>I</u> <u>IV</u> <u>vi</u> <u>V</u> , <u>I</u> <u>IV</u> <u>vi</u> <u>V</u> <u>IV</u> <u>V</u> (<u>E</u>)
"Layla (acoustic)" Eric Clapton.....	Chorus/Solo <u>vi</u> <u>IV</u> <u>V</u> <u>vi</u> (<u>F</u>)
"I Won't Back Down" Tom Petty.....	<u>vi</u> <u>VI</u> (<u>G</u>)
"Under the Boardwalk" The Drifters.....	Chorus <u>vi</u> <u>V</u> (<u>G</u>)
"Heart of Gold" Neil Young.....	Verse <u>vi</u> <u>IV</u> <u>V</u> <u>I</u> (<u>G</u>)
"Paranoid" Black Sabbath.....	Verse <u>vi</u> <u>V</u> , <u>I</u> <u>V</u> <u>vi</u> (<u>G</u>)
"All Along the Watchtower" Jimi Hendrix.....	<u>Eb</u> Tuning, <u>V</u> <u>vi</u> <u>V</u> <u>IV</u> (<u>E</u>)
"Island in the Sun" Weezer.....	<u>vi</u> <u>ii</u> <u>VI</u> (<u>G</u>)
"Ob-La-Di Ob-La-Da" The Beatles.....	Chorus <u>I</u> <u>V</u> <u>vi</u> <u>IV</u> <u>I</u> (<u>Bb</u>)
"Here I Am to Worship" Tim Hughes.....	Verse <u>I</u> <u>V</u> <u>ii</u> , <u>I</u> <u>V</u> <u>IV</u> (<u>E</u>)
"Open the Eyes of My Heart" Michael W. Smith.....	Chorus <u>V</u> <u>vi</u> <u>IV</u> <u>V</u> , <u>V</u> <u>vi</u> <u>ii</u> <u>V</u> (<u>E</u>)
"Days of Elijah / Kadosh" Paul Wilbur.....	Includes <u>iii</u> (<u>Bb</u>)
"Man On the Moon" R.E.M.	Includes <u>iii</u> (<u>G</u>)

Starting on String Five

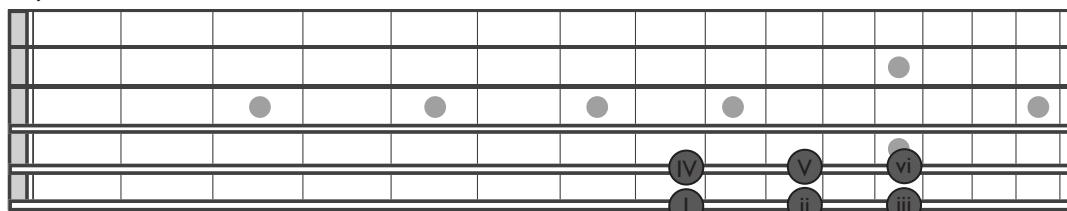
Now that you're comfortable with playing chord progressions in the major scale starting on string six, it's time to learn how the pattern can be played starting on string five. This new position will make it easier to play in keys that were too high on the fretboard with the original pattern.

To start with, play through the chord sequence starting on C at the eighth fret of string six. This key is a little uncomfortable because it's hard to cram all your fingers into the frets especially for the iii chord. The solution is to access these same chords somewhere else on the fretboard where there's more room to work.

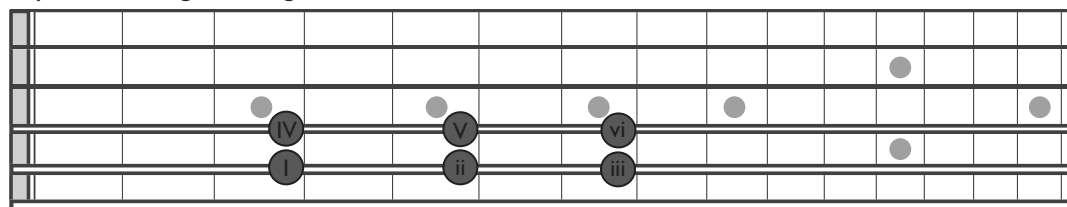
The I, ii, and iii chords can be played on the fifth string as "A form" barre chords starting at fret three. If I, ii, and iii start at the third fret, then so will IV, V, and vi only over a string just like before. You can see in the diagram that the pattern looks familiar, but the common barre chords guitarists use don't originate from the fourth string where IV, V and vi are now located.

The solution is to play the same notes an octave lower. This will place them all on the sixth string where you can use the common "E form" barre chord to complete the new pattern. The end result is a pattern where I, ii, and iii are on string five and IV, V, and vi are on string six. Besides being flip-flopped around in comparison to the original pattern, this one doesn't line up as nicely. Regardless, it's just as important to memorize it because it's used just as frequently.

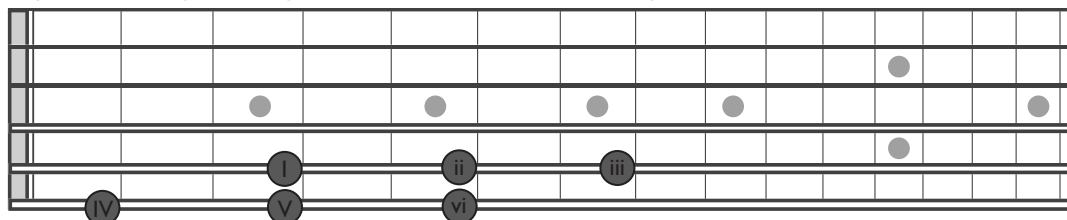
Key of C



Key of C starting on string five



Key of C starting on string five with chords I, IV and V transposed down an octave



On the next page everything is drawn out for you in this new position. If you compare the notes in this new pattern to the first one you learned, then you'll realize they're the same. I is still C, ii is still Dm, etc. You now have two positions to access the same sequence of chords. With the key of C, it's more comfortable, and more common, to play between frets one and five rather than frets eight and twelve.

Key of \underline{C}

The image displays seven musical staves, each containing a scale pattern in the key of C. The staves are arranged vertically. Each staff consists of a treble clef and a bass clef. The patterns are as follows:

- Staff 1: A sequence of notes marked with Roman numerals: IV (bass), I (bass), II (bass), III (bass), and V (treble). There are also several unmarked notes on the staves.
- Staff 2: A sequence of notes marked with Roman numerals: I (bass), II (bass), III (bass), and V (treble). There are also several unmarked notes on the staves.
- Staff 3: A sequence of notes marked with Roman numerals: II (bass), III (bass), and V (treble). There are also several unmarked notes on the staves.
- Staff 4: A sequence of notes marked with Roman numerals: III (bass), IV (bass), and V (treble). There are also several unmarked notes on the staves.
- Staff 5: A sequence of notes marked with Roman numerals: IV (bass), V (bass), and VI (bass). There are also several unmarked notes on the staves.
- Staff 6: A sequence of notes marked with Roman numerals: V (bass), VI (bass), and I (bass). There are also several unmarked notes on the staves.
- Staff 7: A sequence of notes marked with Roman numerals: VI (bass), I (bass), II (bass), and III (bass). There are also several unmarked notes on the staves.

Each staff also features various musical notations, including whole, half, and quarter notes, as well as rests. Some notes are marked with an 'X' below them, indicating specific points of interest or emphasis.

Major Scale Chord Pattern

Key of C

I ii iii IV V vi

"A form" barre chords "E form" barre chords

TAB

3 5 7 3 5 6 7 5 7 8 9 7 1 2 3 1 3 4 5 3 5 5 7 5

3 2 5 5 3 7 7 5 9 1 0 3 3 2 5 5 3 7

4 vi V IV iii ii I

TAB

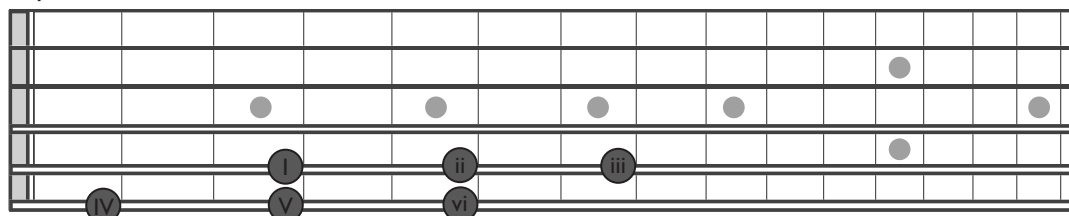
5 5 7 5 3 3 4 3 1 1 2 3 7 8 9 7 5 6 7 5 3 3 5 3

5 3 7 3 2 5 1 0 3 7 5 9 5 3 7 3 2 5

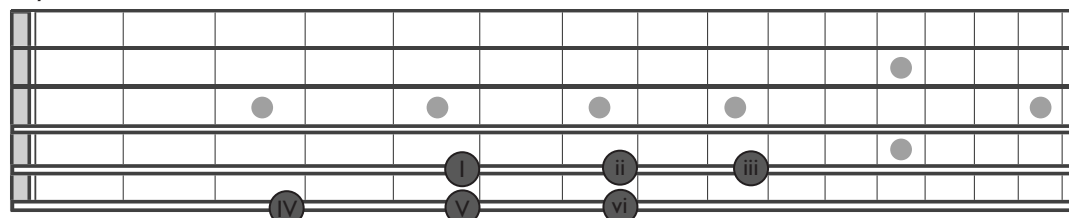
Practice

You should take time to review this new pattern just as you did the original. Slide it around the fretboard to access different keys as demonstrated below. A great exercise is to play a progression in one position and then duplicate it in the other. When dealing with progressions it shouldn't make a difference which position, or which pattern, you play in. You should know both equally as well.

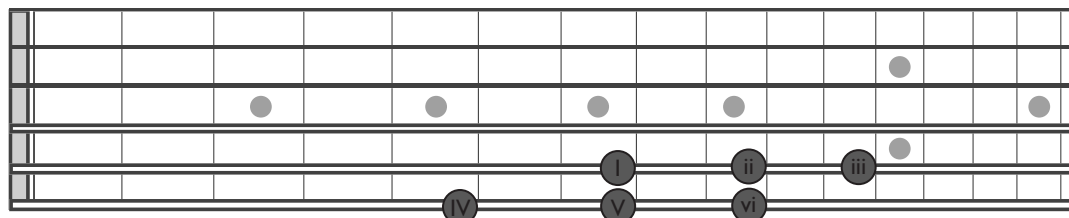
Key of C



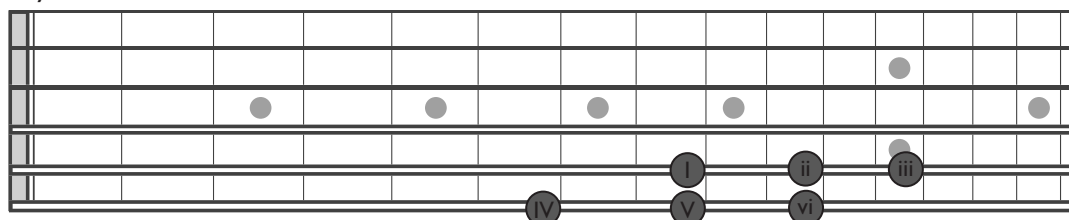
Key of D



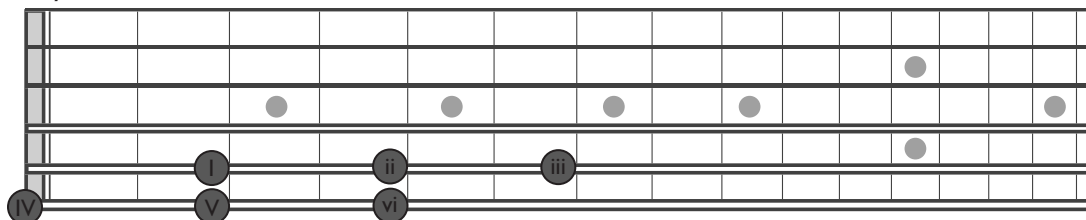
Key of E



Key of F



Key of B



Playing in Two Positions

The next two pages show notation for a sample progression played in one position and then duplicated in other position. Work with this exercise until you can move through each pattern with ease. Once you get the hang of playing this, you can try other progressions based on songs you've learned or make up your own changes.

Progression in Two Positions

Key of C

Position I

Chord progression: I V vi iii IV I ii V

Tablature for Position I (Treble and Bass clefs):

Chord	T	A	B
I	8	8	8
V	10	12	10
vi	12	13	12
iii	12	12	12
IV	8	10	8
I	8	8	8
ii	10	10	10
V	10	12	10

Position 2

Chord progression: I V vi iii IV I ii V

Tablature for Position 2 (Treble and Bass clefs):

Chord	T	A	B
I	3	5	3
V	3	4	3
vi	5	5	5
iii	7	9	7
IV	1	2	1
I	3	5	3
ii	5	6	5
V	3	4	3

Progression in Two Positions

Key of F

Position I

Position 2

5

Chord Progression: I, V, vi, iii, IV, I, ii, V

Position I Fingerings:

Chord	T	A	B
I	1	1	1
V	3	5	3
vi	5	6	5
iii	5	5	5
IV	1	3	1
I	1	1	1
ii	3	3	3
V	3	5	3

Position 2 Fingerings:

Chord	T	A	B
I	8	10	8
V	8	10	8
vi	10	10	10
iii	12	14	12
IV	6	8	6
I	8	10	8
ii	10	12	10
V	8	10	8

Songs in String Five Pattern

The following songs are based on this new pattern. You don't need to learn these songs note for note. Just learn the basic changes and play along using the new chord pattern you now know. Work on major chord songs first, then add in the minors. As you play, don't forget to call aloud each number.

Songs I IV V (On String Five)

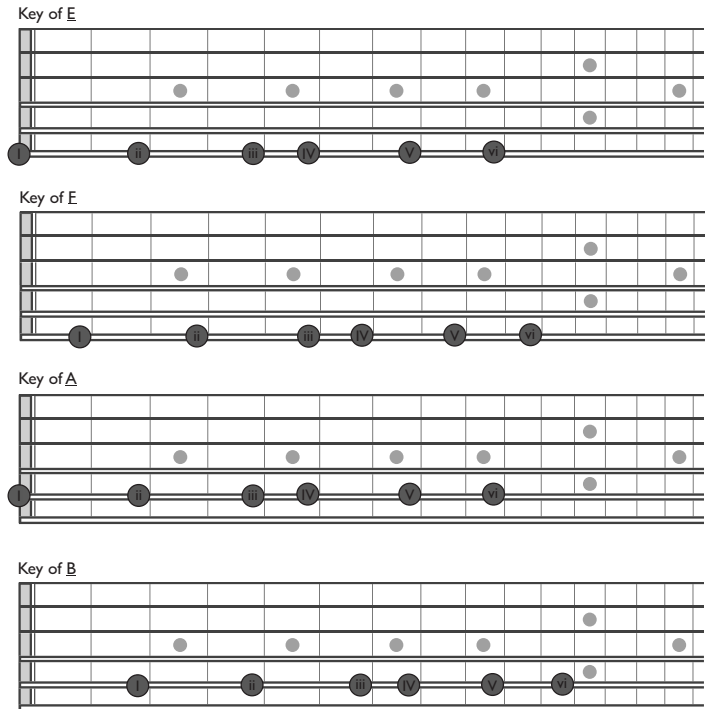
"Jambalaya (On the Bayou)" Hank Williams.....	IV (C)
"You Never Can Tell" Chuck Berry.....	IV (C)
"Summer of '69" Bryan Adams.....	Verse IV (D)
"I Still Haven't Found What I'm Looking For" U2.....	Verse I IV (Db)
"Life of Illusion" Joe Walsh.....	Verse IV I (D)
"Authority Song" John Mellencamp.....	Whole Song! I IV V (D)
"Twist and Shout" The Beatles.....	Verse/Chorus I IV V (D)
"Hold My Hand" Hootie & The Blowfish.....	Chorus I IV V (B)
"Good Lovin'" The Rascals.....	Verse/Chorus I IV V IV (D)
"Do Ya" Electric Light Orchestra.....	Verse/Chorus I IV IV (D)
"The First Cut Is the Deepest" Sheryl Crow.....	Verse/Chorus I IV IV (D)
"I Could Never Take the Place of Your Man" Prince.....	Verse I IV IV (C)
"Never Let You Go" Third Eye Blind.....	Verse/Chorus I IV IV (E)
"Baba O'Riley" The Who.....	Verse I IV IV (F)
"Yellow Ledbetter" Pearl Jam.....	Verse I IV IV (E)
"Crimson and Clover" Tommy James & The Shondells.....	Verse I V IV (B)
"Learn to Fly" Foo Fighters.....	Verse I V IV (B)
"Bad Moon Rising" Creedence Clearwater Revival.....	Verse I V IV (D)
"Helpless" Crosby, Stills, Nash & Young.....	Chorus I V IV (D)
"All the Small Things" Blink 182.....	Verse I V IV V (C)
"Take the Money and Run" Steve Miller Band.....	Verse/Chorus V I V I (C)
"Feliz Navidad" Jose Feliciano.....	Verse IV V I (D)

Songs With ii iii vi (String 5)

"With or Without You" U2.....	Verse/Chorus IV vi IV (D)
"Let it Be" The Beatles.....	Verse I V vi IV (C)
"Beast of Burden" The Rolling Stones.....	Verse I V vi IV (E)
"Blessed Be Your Name" Matt Redman.....	Whole Song! I V vi IV (B)
"Jessie's Girl" Rick Springfield.....	Verse I V vi, IV V I (D)
"You Might Think" The Cars.....	Chorus I IV V vi, I IV V I (D)
"Under the Bridge" Red Hot Chili Peppers.....	Verse I V vi iii IV (E)
"Unchained Melody" The Righteous Brothers.....	Chorus I vi IV V (C)
"Runaround Sue" Dion.....	Verse I vi IV V (D)
"Show Me Your Glory" Third Day.....	Chorus I vi IV V (D)
"How Great is Our God" Chris Tomlin.....	Chorus I vi IV V (Db)
"Dy'er Mak'er" Led Zeppelin.....	Verse/Chorus I vi IV V (C)
"Two Princes" Spin Doctors.....	Verse I vi V IV (D)
"Californication" Red Hot Chili Peppers.....	Verse vi IV (C)
"Have You Ever Seen the Rain" CCR.....	Chorus IV V I V vi (C)
"Feliz Navidad" Jose Feliciano.....	Chorus IV V I vi (D)
"Faith" George Michael.....	Chorus IV I IV I V I vi ii V (B)
"Made To Worship" Chris Tomlin.....	Chorus I IV ii V (C)
"Everlasting God" Lincoln Brewster.....	Chorus I IV vi IV (B)
"Friend of God" Israel Houghton.....	Chorus I vi ii I (D)
"Horse with No Name" America.....	Whole Song! ii iii (D)
"Losing My Religion" R.E.M.....	Verse vi iii (C)
"Louie, Louie" The Kingsmen.....	Whole Song! VI ii I (D)
"Don't Fear the Reaper" Blue Oyster Cult.....	Verse vi V IV V (C)
"Otherside" Red Hot Chili Peppers.....	Chorus vi IV IV (C)
"Maggie May" Rod Stewart.....	Guitar Solos ii V I IV, ii IV I (D)
"Lean On Me" Bill Withers.....	Verse I ii iii IV, IV iii ii I (C)
"The Thrill Is Gone" B.B. King.....	Verse vi ii vi VI iii vi (D)

Combining Positions

The diagrams below show how the two patterns you learned can be combined. The two patterns are really just an extension of one another. It's very common to play chord progressions spread across two positions.



The Open Position

How can you understand the sequence of chords in the open position, you ask? You can play through some keys in the open position and use the barre chord pattern to help you.

Play the chord pattern for any common key. Go through and analyze the numbers to determine the actual notes (roots). Now play through these same chords in the open position. With some chords you'll be able to play them as open forms while the others should be played as either "E form" or "A form" barre chords as close to the open position as possible. Once you work it out, play through the chords in this new position forward and backward until you've memorized everything. Don't forget to call out the chords by number.

Some keys work better than others in the open position. C and G work really well because you can play most of the chords with common open forms. In the open position you lose the benefits that the barre chord pattern gives you in terms of a neat and easy-to-see

shape. With some review of common open keys and practice with open position songs, you can eventually feel as comfortable playing by number in the open position as you do elsewhere.

While working in the open position, your eye can actually look elsewhere on the fretboard to guide you. Here's how this trick works. Visualize the barre chord pattern while you're in the open position. For example, visualize the barre chord pattern starting at the third fret of string six. You can see that the first barre chord is G, right? Well, play it as an open G instead. Visualize the second barre chord in the pattern. Your eye is visualizing a minor barre chord at the fifth fret of string six, your brain realizes that the actual chord is Am and your hands play an open Am in place of the barre chord. If you know the notes on strings six and five like you should, then you should be able to continue and finish the key. Once you have the hang of it try doing the same with other keys.

Key Changes

As I mentioned before, don't expect all songs to stay in one key. It's very common for songs to jump keys, even several times. Sometimes this can easily be seen as the chord pattern will simply shift up or down a position. Other times you may find just one out-of-place chord and not know where it comes from exactly.

Regardless of how a song changes keys, you can always break it down into the chord patterns you now know. Just think of playing key changes as stringing two songs, or two chord patterns, together (or three, or four, or however many key changes occur).

With all this said, you might want to stay away from complex songs for a while and give yourself plenty of time to master single-key progressions.

Minor Chord Progressions

What about minor chord progressions, you ask? Do they require different patterns based on minor scales? Nope. A chord progression can revolve around any scale degree. To play in a minor key, simply play changes that pull to and resolve on any one of the minor chords in the pattern. Many of the song references listed in this chapter do not start on the I chord. In fact, some don't even have a I chord! This concept is the basis for modes which will be explained in Chapter 8.

Renumbering the Chord Pattern

Any chord in the pattern can function as the root. Some players will always call the root chord "one" regardless of which scale degree it actually is. Once "one" is established, everything gets renumbered from there. Reworking everything like this can be confusing and can make keeping track of keys a real burden. Fortunately, you don't have to do it. You can keep the numbers and chord pattern the same regardless of which chord a song revolves around.

Conclusion

Now you know how to stack the notes of the major scale to make chords. In doing so, you learned that every key consists of six commonly used chords. You can easily access the chords in any key by using the numbered patterns. The song examples listed in this section not only demonstrate exactly how these patterns are used to create chord progressions, but also provide plenty of ideas on how to compose chord progressions yourself. The language of numbers should no longer be a mystery to you. Who knows, someday you may find yourself on a bandstand receiving numerical queues from a band leader who called you to fill in on short notice.

Chord Progression DVD

For video demonstrations of building chords, mapping out patterns, and playing popular songs see my DVD entitled *Guitar Chord Progressions and Playing by Numbers*. More details, a free preview, and ordering information is available at my web site: <http://Guitar-Music-Theory.com>

Talk to Me

Have any questions or comments about this chapter? Are there other song references that you think make good examples? I want to hear from you! Contact me through my web site: <http://Guitar-Music-Theory.com>

Chapter 7

Roots, Keys, and Applying Scales

About This Chapter

Now that you've learned about scales, chords and keys, it's time to talk about how all these building blocks fit together. In this section you'll learn how to determine instantly the root and key of a song and immediately find the right scales to play. This information will help you better understand the music you play and take some of the guesswork out of figuring out songs. Once you complete this section you'll be more prepared to compose and improvise your own music.

Topics Covered

1. Applying the pentatonic scale
2. Identifying the root chord
3. Outlining a chord progression
4. Playing the blues
5. Applying the major scale
6. Determining the key
7. Combining pentatonic and major scales
8. Root/key dilemma

Applying the Pentatonic Scale

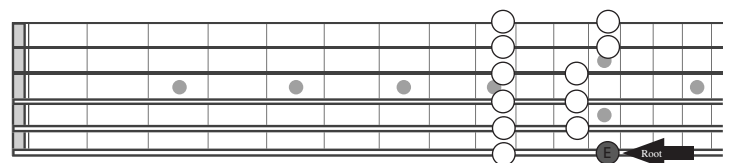
The general rule with the pentatonic scale is that the root chord in a progression determines it. The root chord is the tonal center of a progression. It's frequently where a progression begins and ends (resolves) but not always. Use your ear to figure out which chord sounds like home base. Sometimes a player needs to experiment to determine which chord functions best as the root.

If the root chord in a progression is major, then play that very same major pentatonic scale over the whole progression. If the root chord in a progression is minor, then play that very same minor pentatonic scale over the whole progression.

Major Pentatonic Scale

For example, let's you want to jam on a tune, the chords are E, B and A, and E sounds like the root (as in "Yellow Ledbetter" by Pearl Jam). Play the E major pentatonic scale over the entire progression.

Remember that the major root in the pentatonic scale is the second note of pattern one. In order to play the E major pentatonic scale, the second note in pattern one must be an E. Most people finger the second note with their pinky or ring finger. Put your pinky or ring finger on E at the twelfth fret of string six and play pentatonic scale pattern one in that position. If you do this correctly, then your index finger will start the scale at fret nine. Visualize the "G form" E major chord that accompanies pentatonic pattern one to reinforce your understanding of this major application.



Get Connected

Once you've found the correct starting position you can connect and play in all five patterns around the fretboard if you choose. Use the scale in any way you can imagine. Playing forward, backward, skipping notes, repeating notes, and combining notes are a few techniques to experiment with along with using bends, slides, hammer-ons and pull-offs. Also, try adding in some chromatic tones a la the "blues scale."

Improvising and Composing

The way that all guitar players learn how to improvise and compose with scales is by learning lots of songs and then experimenting with new arrangements for the melodies, riffs and solos. This is done by simply changing the order of the licks and phrases. Once you get the hang of this process you can take parts from one song and then replay them over an entirely different song. Usually this involves transposing the part to a different key (moving the part to a new position). Sometimes you have to work it out in a different pattern. Also, the rhythm may have to be adjusted in order for the part to fit. Through this process you'll develop your own style and maybe even come up with something completely new. Try it!

Power Chords

Sometimes you can get thrown off in terms of a chord's major/minor quality when a song uses power chords. If this happens you may have to try playing both a major and minor pentatonic scale over the tune and listen to what sounds like a fit.

Songs with E Major

The songs listed in the next column consist of slightly different chords but E major is the root chord in all (there are of course a ton more songs based on E, but this will help you get started). Use these songs to practice jamming with the E major pentatonic scale. Some have pentatonic scale parts worth learning and examining.

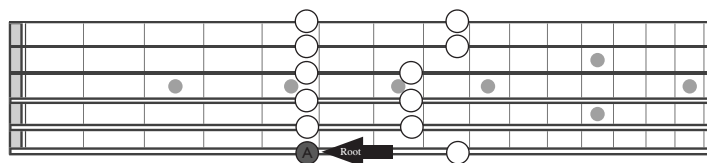
This application of the pentatonic scale holds true for any major chord. If the root chord in a progression is A major, then play the A major pentatonic scale over it. If the root chord in a progression is B major, then play the B major pentatonic scale, etc. Remember that the major root is always the second note of pentatonic pattern one.

Songs with E Major Root

"Never Let You Go" Third Eye Blind.....	includes a pent. riff
"Beast of Burden" The Rolling Stones.....	includes a pent. solo
"Yellow Ledbetter" Pearl Jam.....	includes a pent. solo
"Walk of Life" Dire Straits.....	includes a pent. melody
"No Rain" Blind Melon.....	includes a partial pent. solo
"I Love Rock 'N Roll" Joan Jett & The Blackhearts.....	includes a partial pent. solo
"Hit Me With Your Best Shot" Pat Benatar.....	includes a partial pent. solo
"Blue Sky" The Allman Brothers Band.....	includes a pent. intro and partial pent. solo
"Santeria" Sublime.....	includes a pent. solo with chromatic tones
"Under the Bridge" Red Hot Chili Peppers.....	verse only
"What I Like About You" The Romantics.....	
"I Wanna Be Sedated" The Ramones.....	
"A Change" Sheryl Crow.....	
"Dreams" The Cranberries.....	

Minor Pentatonic Scale

Now let's examine how to approach a song with a minor chord functioning as the root. If a song consists of Am, G and F but the Am sounds like the tonal center (as in the solo section to "Stairway to Heaven" by Led Zeppelin) play the A minor pentatonic scale over the entire progression. If another song uses slightly different chords but an Am still sounds like the root, then once again use the Am pentatonic scale.



The minor root in the pentatonic scale is always the first note of pattern one. In the above example, in order to play the A minor pentatonic scale the first note in pattern one must be an A. Put your index finger on A at the fifth fret of string six and play pentatonic pattern one in this position. Visualize the A minor barre chord ("Em form") that accompanies pentatonic pattern one to reinforce your understanding of this minor application. As always, you can connect to any pattern you wish.

Songs with A Minor

The following songs each consist of slightly different chords but A minor is the root chord in all (there are of course a ton more songs based on Am, but this will help you get started). Use these songs to practice jamming with the A minor pentatonic scale. Some have pentatonic scale parts worth learning and examining.

Songs with A Minor Root

"Smooth" Santana Featuring Rob Thomas.....	
"Moondance" Van Morrison.....	
"Brickhouse" The Commodores.....	
"Who Will Save Your Soul" Jewel.....	
"Mr. Jones" Counting Crows.....	
"Rhiannon" Fleetwood Mac.....	
"House of the Rising Sun" The Animals.....	
"Cold Shot" Stevie Ray Vaughan & Double Trouble.....	Includes Pent. Solo
"Tweezer" Phish.....	Includes Pent. Riff
"In 2 Deep" Kenny Wayne Shepherd.....	Includes Pent. Riff
"Maria Maria" Santana.....	Includes Pent. Solo/Riff
"Breakdown" Tom Petty.....	Includes Pent. Solo/Riff
"Oye Como Va" Santana.....	Includes Partial Pent. Solo/Riff
"Stairway to Heaven" Led Zeppelin.....	Includes Pent. Solo & Riff

The last set of examples use an A minor chord but this application of the pentatonic scale holds true for any minor chord. If the root chord in a progression is B minor, then play the B minor pentatonic scale over it. If the root chord in a progression is C minor, then play the C minor pentatonic scale, etc.

The pentatonic scale is easy to apply because you don't have to give much thought to the other chords in a progression if you don't choose to. Because of this, it's the most widely used scale by beginner and intermediate guitarists for jamming.

Outlining a Chord Progression

Another way to apply the pentatonic scale is to play separate scales for each chord. In a progression that includes D, C, and G play the D major pentatonic scale over the D chord, the C major pentatonic scale over the C chord, and G major pentatonic scale over the G chord. Changing the pentatonic scale to correspond to each chord in a progression is a way of outlining the progression. This approach can create a sense of what the changes are even if there's no accompaniment.

If you want to truly understand the benefits of outlining, play through a pentatonic scale (for example G major) unaccompanied. Without accompaniment, there is no indication of what the changes are when you play only one scale. If you imagine a chord progression and change the pentatonic scale to correspond to each chord, then each scale will give an impression of what each chord is. For this reason, changing pentatonic scales is also very useful, and quite common, in bass playing.

Obviously this approach requires a lot more effort because you must keep track of each chord change and switch pentatonic scales for each one. You ought to be comfortable with playing many pentatonic scale songs before you attempt to outline a progression. It's important to keep in mind that this application of the pentatonic scale is simply a stylistic preference that happens to be more complicated. It's not always the better approach.

Songs with Multiple Scales

The following songs use this technique of changing pentatonic scales to correspond to each chord change. The Jimi Hendrix examples are rather complex and contain more than just pentatonic scales.

Changing Pentatonic Scales

"My Girl" The Temptations.....	Gtr. Riff
"Couldn't Stand the Weather" Stevie Ray Vaughan.....	Gtr. Lead Intro
"Sweet Home Alabama" Lynyrd Skynyrd	Gtr. & Piano Riff After First Verse
"Money" Pink Floyd.....	Bass Chorus
"Spirit of Radio" Rush.....	Gtr. & Bass Riff
"Bold as Love" Jimi Hendrix.....	
"Castles Made of Sand" Jimi Hendrix.....	
"Little Wing" Jimi Hendrix.....	

What about the Blues?

Guitar players who have experience playing blues and blues-based rock music usually get a little confused about these pentatonic scale applications. This is because it's quite common for a blues song to have a major chord functioning as the root yet a minor pentatonic scale is played over it. For example, "Give Me One Reason" by Tracy Chapman has an F^\sharp *major* chord functioning as the root yet the guitar solo utilizes mainly the F^\sharp *minor* pentatonic scale.

When you play minor over major you can expect to hear a little tension or dissonance. This characteristic has come to be known as part of the "blues" sound.

Another good example of this blues application is the opening to "Couldn't Stand the Weather" by Stevie Ray Vaughan (guitar tuned to E^\flat). The chord changes are Bm , A^7 , G^7 . Stevie treated each chord as a key change by switching pentatonic scales to correspond to each chord. He plays B minor pentatonic over the Bm chord as you'd expect. But then he plays A *minor* pentatonic over the A^7 chord which is based on a *major* triad. He does the same thing over G^7 .

You can expect to hear this "minor-over-major" concept a lot in blues and rock music. Just in case you're wondering, it doesn't work the other way around (playing a major pentatonic scale over a minor chord).

The Big Blues Problem

The blues gave birth to rock 'n roll, which has evolved and branched out into countless genres that utilize blues techniques. Unfortunately, this has led to a big problem among guitar players. Many young players are introduced to the blues approach before they learn anything else. They become so accustomed to playing only the minor pentatonic scale, over both minor and major chords, that they assume it's the end all and be all of scales. In short, they treat everything like a blues song.

The blues approach will usually sound appropriate when used with a blues or blues-based rock song. With other styles, its usefulness is secondary. Furthermore, blues music doesn't have to always break the rules. It can, and frequently does, make good use of the major pentatonic scale along with the minor. Accomplished guitar players realize this and familiarize themselves with all of the pentatonic scale applications in order to develop a more versatile style.

Blues Songs

The songs in the next column use the minor pentatonic scale along with major-based (chords with major thirds) roots. Some solos combine both the major and minor pentatonic scale.

The "Blues" Approach

"Couldn't Stand the Weather" Stevie Ray Vaughan.....	Intro Gtr. Solo
"Hey Joe" Jimi Hendrix.....	Gtr. Solo
"Blue on Black" Kenny Wayne Shepherd.....	Gtr. Solo
"Give Me One Reason" Tracy Chapman.....	Gtr. Solo
"You Shook Me All Night Long" AC/DC.....	Gtr. Solo
"Play That Funky Music" Wild Cherry.....	Gtr. Solo
"Two Princes" Spin Doctors.....	Gtr. Solo
"Johnny B. Goode" Chuck Berry.....	Gtr. Solo
"What I Got" Sublime.....	Gtr. Solo
"Keep Your Hands to Yourself" Georgia Satellites.....	Gtr. Solo
"I'm Tore Down" Eric Clapton.....	Gtr. Solo
"Red House" Jimi Hendrix.....	Gtr. Solo
"Let's Go Crazy" Prince.....	Gtr. Solo
"Lay Down Sally" Eric Clapton.....	Gtr. Solo
"Louie, Louie" The Kingsmen.....	Gtr. Solo
"Pride and Joy" Stevie Ray Vaughan.....	Rhy. Gtr. & Solos
"Hair of the Dog" Nazareth.....	Intro Gtr./Bass Riff
"Hard to Handle" The Black Crowes.....	Intro Gtr./Bass Riff
"Killing in the Name" Rage Against the Machine.....	Gtr./Bass Riff
"Lowrider" War.....	Bass
"Wild Thing" The Troggs.....	Recorder Solo

Other Pentatonic Uses

There's one more thing about applying the pentatonic scale you should take into consideration. The pentatonic scale isn't a scale unique to only guitar and bass players. All instruments utilize the pentatonic scale including voices. Many of the songs referenced in this section have pentatonic scale vocal melodies, keyboard parts, horn parts and more.

The purpose of learning how to apply the pentatonic scale, or any scale for that matter, isn't solely for playing guitar riffs and solos. You can use a guitar to compose parts for any instrument. In addition, vocal melodies and harmonies can be worked out and arranged on your guitar if you know your scales.

Applying the Major Scale

When applying the major scale you must take into consideration every chord you intend to play it over. When all chords fit into the same key, then you can play that very same major scale over the entire progression. “Key” refers to the parent major scale from which all chords in a progression are built.

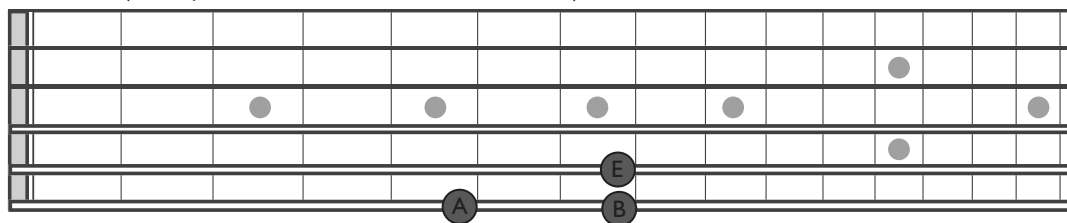
Example I

For example, E, B and A (as in “Yellow Ledbetter” by Pearl Jam) all fit into the E major scale chord pattern. Because of this you can play the E major scale over the entire progression.

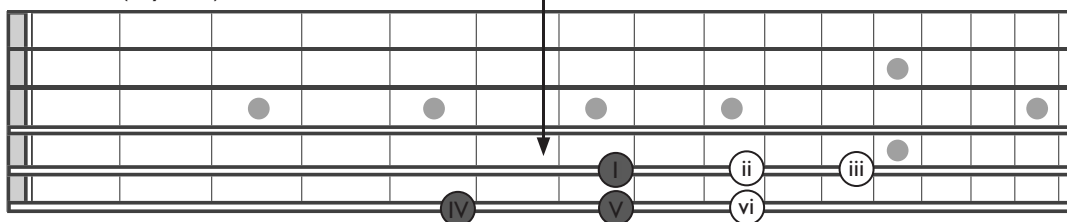
How are you supposed to know what key a chord progression fits into? Match shapes! If you play a progression on the fretboard using common barre chords, and if you memorized and practiced the major scale chord pattern like you should have, then it’ll only take you a moment to figure out which key a group of chords fit into together.

The diagrams below illustrate how E, B and A together fit into the E major chord pattern. Can you see that these chords are I, V and IV in the key of E? The E major scale chord pattern is the only key that includes *all three of these chords together*. That’s why the E major scale is the correct scale to use over the entire progression. The progression is the E major scale.

E, B and A (all major chords as in “Yellow Ledbetter”)

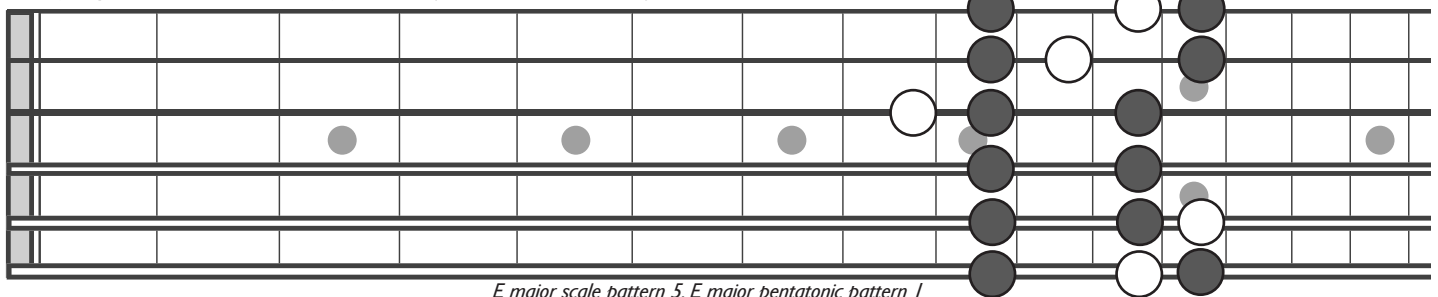


I, V and IV (key of E)



Here’s one way you can combine both the pentatonic and major scales for the “Yellow Ledbetter” example.

E major pentatonic scale/E major scale (“Yellow Ledbetter”)



E major scale pattern 5, E major pentatonic pattern 1

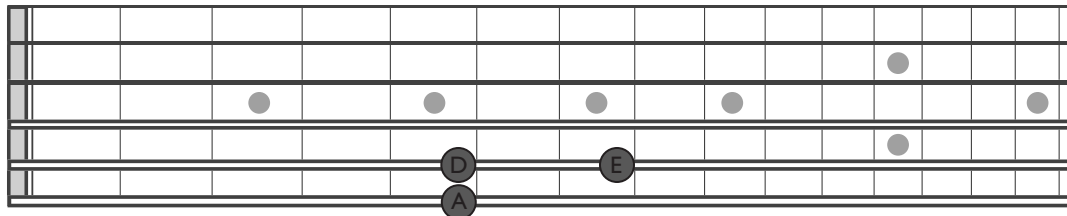
If you’re completely confused at this point, then you need to go back and review the major scale chord pattern (I ii iii IV V vi) covered in the previous chapter. Make sure you completely memorize the pattern and practice playing it in different keys. Remember that it’s possibly the most important pattern in music!

Example 2

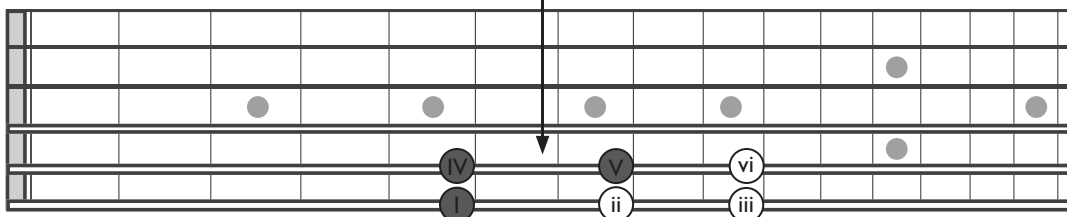
Unlike the pentatonic scale, the major scale doesn't follow the root chord. If the root chord was always I, then there wouldn't be a problem but any chord in a major key can function as the root.

For example, "What I Like About You" by The Romantics consists of the chords E, A and D and E functions as the root. If you play these three chords on the fretboard as common barre chords it shouldn't take you long to see that they all fit together into the A major scale chord pattern, in which case they are V, I and IV. The correct major scale to play over "What I Like About You" is the A major scale. The root chord in this example isn't I it's V. Check out these diagrams.

E, A and D (all major chords as in "What I Like About You")

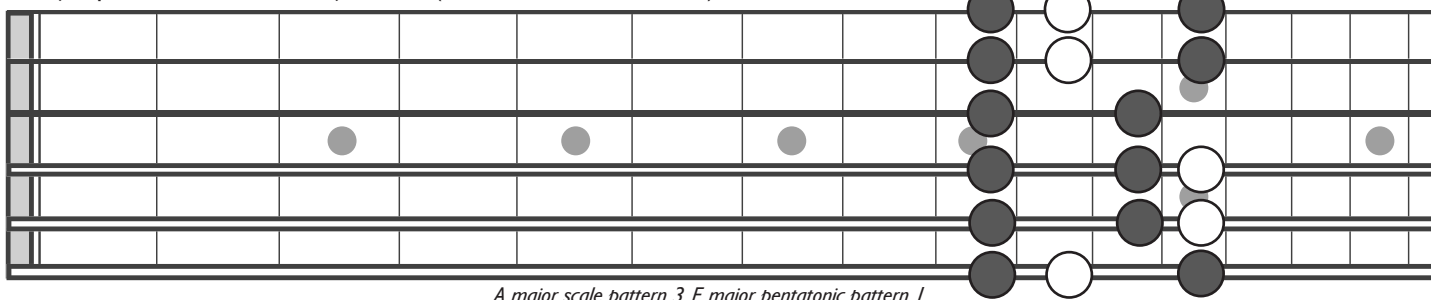


V, I and IV (key of A)



You can play both the A major scale and E major pentatonic scale over "What I Like About You". A major scale because that's the key, and E major pentatonic scale because that's the root. Both scales can be combined and mixed. Below you can see one way to do this.

E major pentatonic scale/A major scale ("What I Like About You")



A major scale pattern 3, E major pentatonic pattern 1

"Yellow Ledbetter" and "What I Like About You" share the same root but are actually in two different keys. This has no effect on the way you apply the pentatonic scale but it makes all the difference with the way you must apply the major scale.

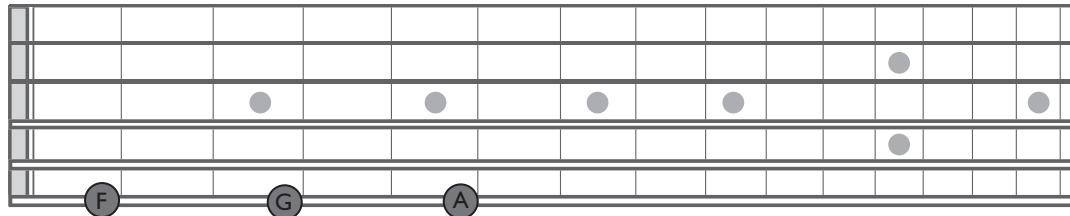
If you compare the pentatonic scales and major scales from the last two examples, then you'll see that all the pentatonic scale notes are found in both major scales. The pentatonic scale is actually a simplified major scale. Nonetheless, guitar players still think of it and its patterns differently and categorize its sound differently. It also must be applied differently.

One more thing concerning "What I Like About You." This song can be treated like a blues by playing the E minor pentatonic scale instead of the major. Sounds good to me. Try it!

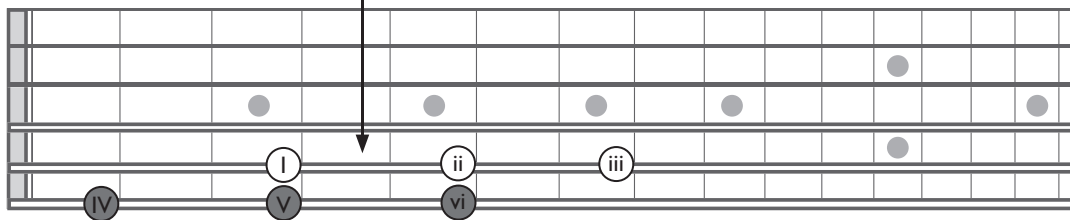
Example 3

Now let's deal with the example of "Stairway to Heaven" by Led Zeppelin. The solo section consists of the chords Am, G and F. If you play these three chords on the fretboard using common barre chords it's easy to see that they can only fit together into the C major scale chord pattern, in which they are vi, IV and V. You should play the C major scale over this. Since the A minor chord is functioning as the root in this example, you can also use the A minor pentatonic scale. You can also combine the scales. Look below for one way to do this.

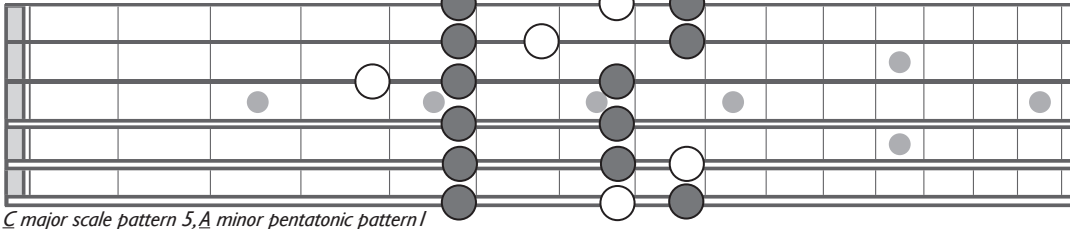
Am, G, and F (as in "Stairway to Heaven")



vi, V, and IV (key of C)



Am pentatonic/C major scale ("Stairway to Heaven")

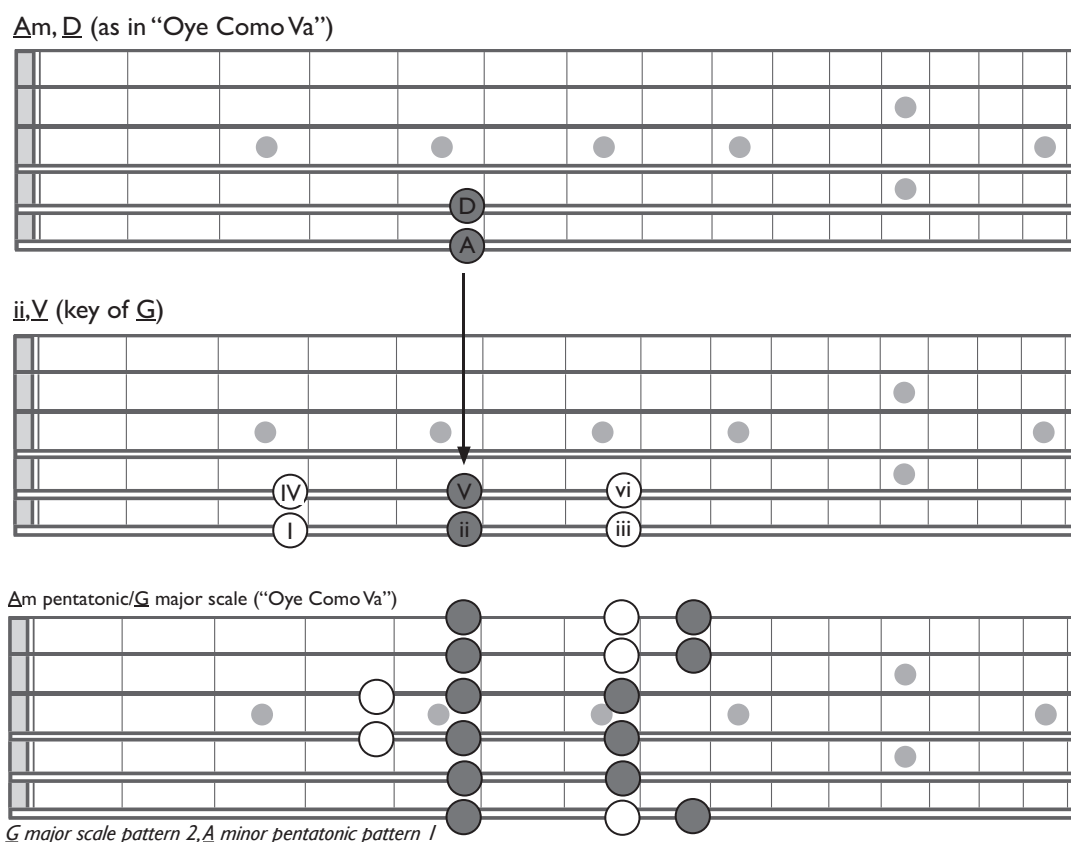


C major scale pattern 5, A minor pentatonic pattern 1

In the above C major scale example there's no C chord in the progression. With any given key, any chord can function as the root and any chords can be used or not used.

Example 4

Another song, “Oye Como Va” by Santana consists of the chords A minor and D. If you play these two chords on the fretboard using common barre chords it’s easy to see that they can only fit together into the G major scale chord pattern, in which they are ii and V. You can play the G major scale over this progression and since the A minor chord is functioning as the root, you can also use the A minor pentatonic scale. You can see this illustrated below along with one example on how to combine the scales.



“Stairway to Heaven” and “Oye Como Va” share the same root but are actually in two different keys. This has no affect on the way you apply the pentatonic scale but it makes all the difference with the way you must apply the major scale.

What happens if you play the wrong major scale? Some, or all, of the notes will sound wrong. That’s why many struggling guitarists give up on the major scale and resort back to strictly using the pentatonic scale. Others can’t even handle the two pentatonic scale tonalities and resort to playing only minor-based blues (nothing wrong with the blues). If you’re interested in being more versatile and exploring other styles, don’t let this happen to you. Once you get accustomed to matching shapes, finding the appropriate scales will be a piece of cake (nothing wrong with cake either).

Root/Key Dilemma

There’s an ongoing dilemma in the world of music you should know. The problem lies in the fact that the root of a progression and the key are not always the same. This is because any chord in a key can function as the root.

“Key” is supposed to refer to the parent major scale but a lot of people don’t realize this. “What I Like About You” is usually referred to as being in the key of E but it’s not. It’s in the A major scale (key of A) but because the song revolves around E most people consider it to be in that key. This is really a mistake but you better get used to it because it’s a common one.

Furthermore, a lot of ill-informed musicians will always consider the key to be whatever is first. For example “Sweet Home Alabama” by Lynyrd Skynyrd is in the G major scale (key of G) and G is functioning as the root but some people will tell you it’s in the key of D because that’s the very first chord. Musicians who know what they’re talking about might say “this song is in the key of G, G is the root, but it starts on D.”

In the next chapter you’ll learn how modes put a label on the root/key connection. Until then, the next time someone tells you what key a song is in you’ll have to think about whether they’re referring to the parent major scale, the root, or the first chord in the song. Good luck!

Review

Let’s take a moment to review the rules of application presented in this chapter.

1. The pentatonic scale is determined by the root chord in a progression.

If the root chord is major, then play that very same major pentatonic scale. If the root chord is minor, then play that very same minor pentatonic scale. In pattern one, the first note is the minor root and the second note is the major root. Make sure you position the pattern correctly.

2. Sometimes a player will change scales for each chord.

Instead of playing one pentatonic scale over an entire progression, you can treat each chord as the root and change scales as you go.

3. Blues and blues-based rock songs may break the rules.

A common blues technique is to play the *minor* pentatonic scale over a song with a *major* root.

4. The major scale is determined by all the chords in a progression.

You must use the major scale chord pattern to figure out in which key all the chords fit. The major and pentatonic scales won’t always be the same.

5. Once you determine the appropriate pentatonic and major scales you can combine the two.

Analyzing Songs

Remember all the songs from the chapters on the pentatonic and major scales? If you analyze these songs you’ll see that they follow these rules of application. Check it out! As you analyze, keep in mind that the root chord in a song may change at some point, a song may switch to a new key, and the rules may be broken a little bit every now and then.

Conclusion

Now you know how to determine the root chord in a progression, the key of a song, and the appropriate pentatonic and major scales to use. This information will help you understand the music you play better and take some of the guesswork out of figuring out a song. Additionally, you’re now more prepared to compose and improvise your own music. Try it!

Talk to Me

Have any questions or comments about this chapter? Are there other song references that you think make good examples? I want to hear from you! Contact me through my web site: <http://Guitar-Music-Theory.com>

Chapter 8

Modes

About This Chapter

This section will tackle the infamous topic of modes. You'll learn that everything is in a mode and you've been using modes all along. Once you grasp the concept of modes you'll enjoy greater clarity on the root/key relationship and you'll be better able to categorize all the possible sounds of the major scale. This information will help you to recognize the elements of the music you listen to and give you more control over your own compositions. Plus this chapter delves briefly into how modes are used in blues music.

Topics Covered

1. Seven possible roots of the major scale
2. Greek mode names
3. Sound characteristics
4. Practicing
5. Key Changes
6. Modes and the blues

Modes

If you understand the construction of the major scale chord pattern, then you already understand modes to some degree. Any note, or chord, in a key can function as the root. There are seven notes in a major scale, which result in seven possible roots, or "modes." The sound of the scale changes depending on what functions as the root. It's really that simple. Can you believe that the topic of modes has caused more confusion than perhaps any other musical concept?

The tonal characteristics of a scale can be different depending on which note, or chord, functions as the root. For example, play the G major scale over a G major

chord. *You'll need a recording device, keyboard or friend to do this because it won't work unless you hear the scale and chord combined!* Notice how the scale sounds very happy as in "Joy to the World." The Greeks called this sound "Ionian." The first chord in a key always creates this so-called Ionian mode. It makes no difference how you phrase the scale or on which note you start as long as you're playing over the I chord.

Now play the very same G major scale over the ii chord A minor. The scale now has a jazzy minor quality to it as in "Moondance" by Van Morrison. The Greeks called this sound "Dorian." The second chord in any key always creates this so-called Dorian mode. It makes no difference how you phrase the scale or on which note you start as long as you're playing over the ii chord.

So each chord creates its own signature sound, or mood, when combined with its parent major scale. "Mood" and "mode" sound very similar, don't they?

The Lucky Seven

Every song is either in a major scale or thought of in relation to one. There are seven notes in a major scale and seven possible modes. Each mode has its own sound characteristics and Greek name. Some modes are more popular than others although there's one that is never used.

Ionian Mode (a.k.a. Major Scale)

The sound that's created when the first scale degree functions as the root is what the Greeks referred to as Ionian. "Ionian mode" and "major scale" are synonymous and because of this most musicians almost always refer to it simply as "major scale." If you want to play an Ionian scale, then start on the first scale degree and play until you reach an octave. Just as the first chord in a key is major, the first mode has a major tonality. Ionian mode generally sounds happy and is the most widely used.

Below is a list of songs that are either entirely in Ionian mode or at least include an Ionian mode section. You can combine this list together with most of the songs from Chapter 6 that start on chord I. Work them out and examine them.

Ionian Mode

"Meet Virginia" Train.....	(C)
"Let It Be" The Beatles.....	(C)
"All the Small Things" Blink 182.....	(C)
"Like a Rolling Stone" Bob Dylan.....	(C)
"Fool In the Rain" Led Zeppelin.....	(C)
"La Bamba" Los Lobos.....	(C)
"Don't Get Me Wrong" The Pretenders.....	(C)
"Sweet Home Alabama" Lynyrd Skynyrd.....	(G)
"Semi-Charmed Life" Third Eye Blind.....	(G)
"Redemption Song" Bob Marley.....	(G)
"Wonderful Tonight" Eric Clapton.....	(G)
"Last Kiss" Pearl Jam.....	(G)
"Joey" Concrete Blonde.....	(G)
"Talking About a Revolution" Tracy Chapman.....	(G)
"Blister in the Sun" Violent Femmes.....	(G)
"Closing Time" Semisonic.....	(G)
"Friend of the Devil" The Grateful Dead.....	(G)
"Cliffs of Dover" Eric Johnson.....	Excluding Intro (G)
"If I Had \$1,000,000" Barenaked Ladies.....	Capo II (G)
"Closer to Fine" The Indigo Girls.....	Capo II (G)
"When I Come Around" Green Day.....	Tune down 1/2 Step (G)
"Never Let You Go" Third Eye Blind.....	(E)
"Yellow Ledbetter" Pearl Jam.....	(E)
"Hit Me With Your Best Shot" Pat Benatar.....	(E)
"In Too Deep" Sum 41.....	(E)
"Fat Lip" Sum 41.....	(E)
"Beast of Burden" The Rolling Stones.....	(E)
"My Own Worst Enemy" Lit.....	(E)
"Mama I'm Coming Home" Ozzy Osbourne.....	Tune Down 1/2 Step (E)
"Why Don't You Get a Job?" The Offspring.....	(F)
"The Joker" Steve Miller Band.....	(F)
"Call Me Al" Paul Simon.....	(F)
"Free Falling" Tom Petty.....	(F)
"Glycerine" Bush.....	(F)
"Angel" Sarah McLachlan.....	Live Version (D)
"Maggie May" Rod Stewart.....	Excluding Intro (D)
"Margaritaville" Jimmy Buffet.....	(D)
"Breakfast at Tiffany's" Deep Blue Something.....	(D)
"Tub Thumping" Chumbawumba.....	(D)
"Jack and Diane" John Mellencamp.....	(A)
"Every Morning" Sugar Ray.....	Tune Down 1/2 Step (A)
"Every Breath You Take" The Police.....	(A)
"Satellite" Dave Matthews Band.....	(Ab)

Almost all the songs listed in Chapter 6 that start on chord I are Ionian mode. Use those songs together with this list.

Dorian Mode

The sound that's created when the second scale degree functions as the root is what the Greeks referred to as Dorian. There are no other agreed upon names for this mode. Just as the second chord in a key is minor, the second mode has a minor tonality (and is considered a type of minor scale). Dorian mode is fairly common and characterized by sounding dark and jazzy.

If you want to play a Dorian scale, then start on the second scale degree and play until you reach an octave. With the modal concept however, it doesn't make a difference on which note you start because modes are determined by roots, not starting positions. For example, "Wonderful Tonight" by Eric Clapton is in the key of G and G functions as the root creating the sound known as Ionian mode. If you play over this song using the G major scale starting on the second scale degree, then you're still playing Ionian mode because *the first note is still functioning as the root*. It makes no difference how you phrase the scale. This is true for all modes.

The songs in the next list are either entirely in Dorian mode or at least include a Dorian mode section. Everything is indicated first by root, then by mode, and finally by the parent major scale which is in parenthesis. For example "Oye Como Va" by Santana is in A Dorian (G) meaning that A is the root and it's the second (ii) scale degree in the parent major scale (the parent major scale must be G, get it?).

Modes Are Not Patterns

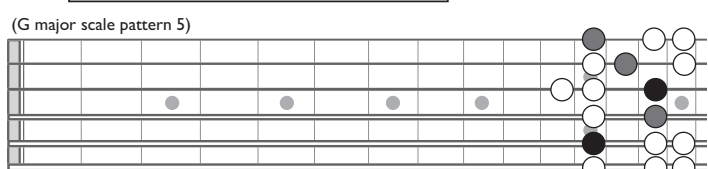
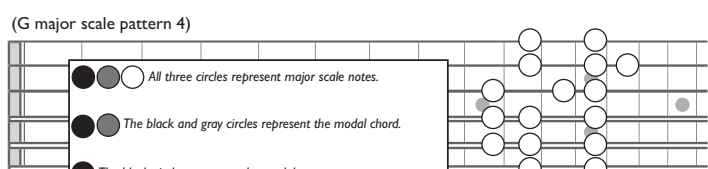
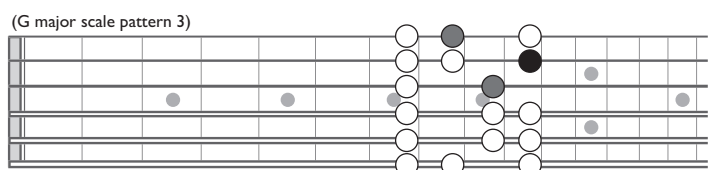
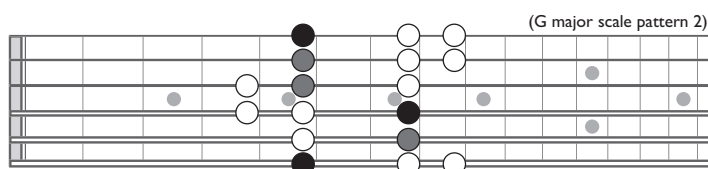
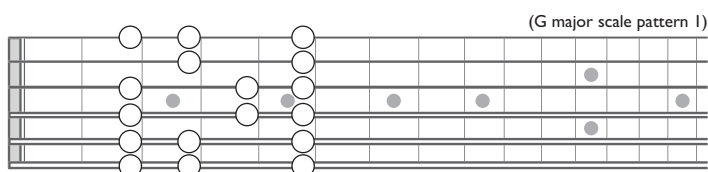
One of the most misrepresented ideas among guitar players is that modes are scale patterns. Many scale books will illustrate a major scale pattern followed by a Dorian pattern, Phrygian, Lydian, etc. This is very misleading. In reality there are only major scale patterns which are all just pieces of a bigger unit. Breaking up the major scale template into different patterns or moving from one pattern to another doesn't create a new scale or mode because the *notes are still the same!* The modal concept simply refers to which major scale degree is functioning as the root, and the unique sound characteristics this tonal center creates.

Remember that many musicians have their own convoluted way of thinking of things and as a result may not always refer to modes correctly. If you run into communication problems with someone, then recommend this book!

Dorian Mode

"Moondance" Van Morrison.....	A Dorian (G)
"Fly Like an Eagle" Steve Miller Band.....	A Dorian (G)
"Brickhouse" The Commodores.....	A Dorian (G)
"Le Freak" Chic.....	A Dorian (G)
"Oye Como Va" Santana.....	A Dorian (G)
"Who Will Save Your Soul" Jewel.....	A Dorian (G)
"Light My Fire" The Doors.....	Solo Section, A Dorian (G)
"Walking on the Sun" Smash Mouth.....	Tune Down 1/2 Step, A Dorian (G)
"Grease" Frankie Valli.....	B Dorian (A)
"Golgi Apparatus" Phish.....	B Dorian (A)
"Stayin' Alive" The Bee Gees.....	F Dorian (E ^b)
"Another Brick in the Wall (Part II)" Pink Floyd.....	D Dorian (C)
"Your Body is a Wonderland" John Mayer.....	Bridge/Solo D Dorian (C)
"Evil Ways" Santana.....	G Dorian (F)
"Horse with No Name" America.....	E Dorian (D)
"Spooky" Atlanta Rhythm Section.....	E Dorian (D)
"Godzilla" Blue Oyster Cult.....	F [#] Dorian (E)
"IWish" Stevie Wonder.....	E ^b Dorian (D ^b)

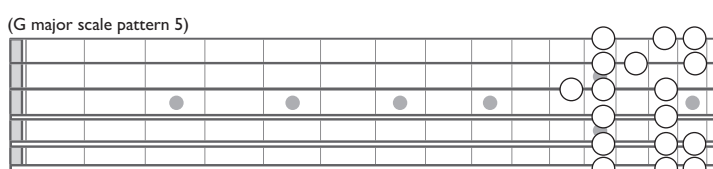
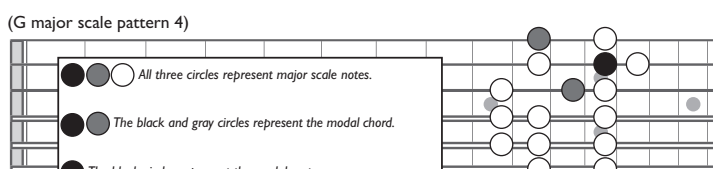
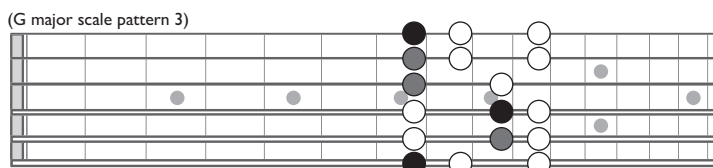
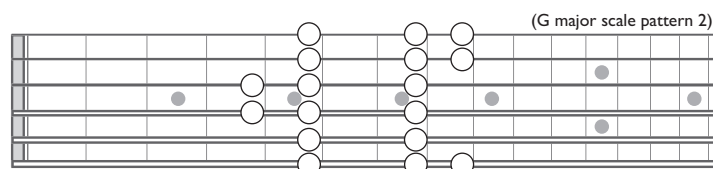
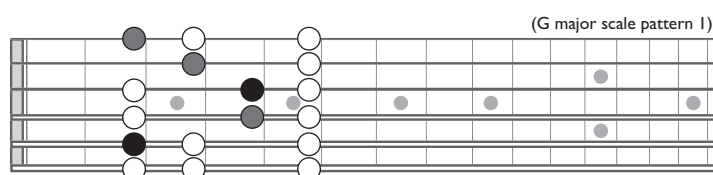
Below is an example of how you might view the fretboard in Dorian mode. The parent major scale is G, but everything is revolving around the second scale degree A which is chord ii. All the dots represent the G major scale notes. The black and gray dots represent the notes of some common A minor chord shapes. The black dots are the root A specifically in those shapes (which you can emphasize in order to tie the scale to the mode). Use these illustrations while playing along with any of the A Dorian mode songs listed above.



Phrygian Mode

The sound that's created when the third scale degree functions as the root is what the Greeks referred to as Phrygian. There are no other agreed upon names for Phrygian mode. If you want to play a Phrygian scale, then start on the third scale degree and play until you reach an octave. Just as the third chord in a key is minor, the third mode has a minor tonality (and is considered a type of minor scale). Phrygian mode, which isn't commonly used, is usually recognized by its Spanish sounding flavor. Interestingly though, Spanish music is more likely to use other modes. The only good example that comes to mind is "Wherever I My Roam" by Metallica.

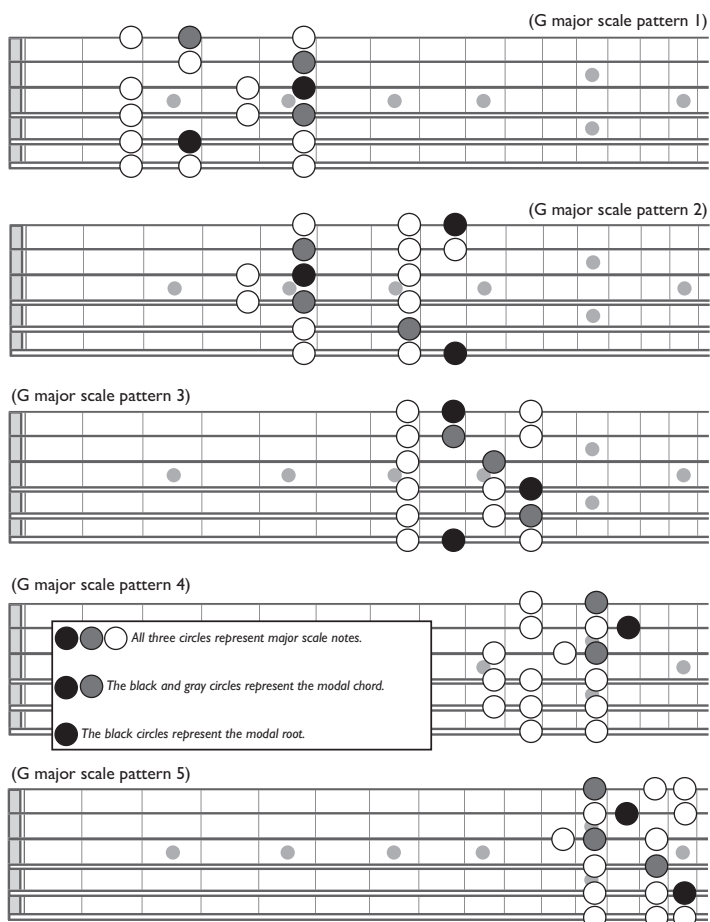
Below is an example of how you might view the fretboard in Phrygian mode. In this diagram the parent major scale is G but everything is revolving around the third scale degree B (iii). This template can be shifted to produce Phrygian mode in other keys.



Lydian Mode

The sound that's created when the fourth scale degree functions as the root is what the Greeks referred to as Lydian. There are no other agreed upon names for Lydian mode. If you want to play a Lydian scale, then start on the fourth scale degree and play until you reach an octave. Just as the fourth chord in a key is major, the fourth mode has a major tonality. Lydian mode generally sounds unresolved and creates a feeling of anticipation. It's commonly used in film sound tracks but rarely used in popular music.

Below is an example of how you might view the fretboard in Lydian mode. In this diagram the parent major scale is \underline{G} but everything is revolving around the fourth scale degree \underline{C} (IV). This template can be shifted to produce Lydian mode in other keys. In the next column is a list of songs that are either entirely in Lydian mode or at least include a Lydian mode section.



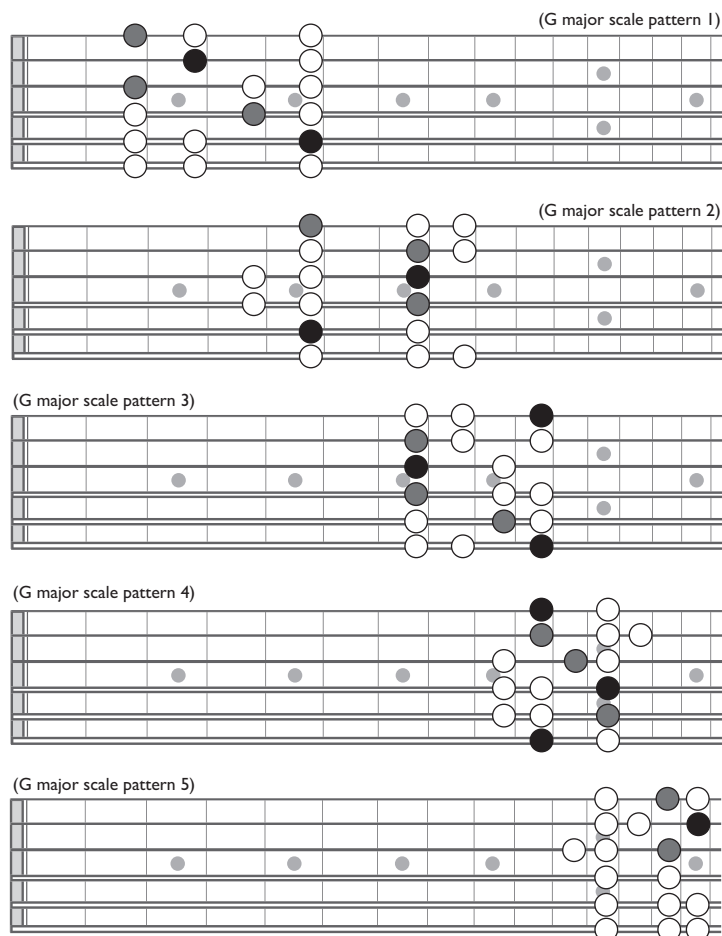
Lydian Mode

"Freewill" Rush.....	<i>F Lydian (C)</i>
"Dreams" Fleetwood Mac.....	<i>F Lydian (C)</i>
"Just Remember I Love You" Firefall.....	<i>F Lydian (C)</i>
"Jane Says" Jane's Addiction.....	<i>G Lydian (D)</i>
"Hey Jealousy" Gin Blossoms.....	<i>D Lydian (A)</i>
"Landslide" Fleetwood Mac.....	<i>C Lydian (G)</i>
"Man On the Moon" R.E.M.....	<i>C Lydian (G)</i>
"Here Comes My Girl" Tom Petty.....	<i>A Lydian (E)</i>
"The Simpsons" Theme to.....	<i>Starts in C Lydian (G)</i>
"Maria" from West Side Story.....	<i>E^b Lydian (B^b)</i>
"The Jetsons" Theme to.....	<i>Starts in E Lydian (B)</i>

Mixolydian Mode (a.k.a. Dominant Scale)

The sound that's created when the fifth scale degree functions as the root is what the Greeks referred to as Mixolydian. This mode is also known as the "dominant scale." If you want to play a Mixolydian scale, then start on the fifth scale degree and play until you reach an octave. Just as the fifth chord in a key is major, the fifth mode has a major tonality. Mixolydian mode is very common and often associated with hippie rock, blues and other jam-oriented styles.

The next page includes an example of how you might view the fretboard in Mixolydian mode. In this diagram the parent major scale is \underline{G} but everything is revolving around the fifth scale degree \underline{D} (V). This template can be shifted to produce Mixolydian mode in other keys. Following the diagrams is a list of songs that are either entirely in Mixolydian mode or at least include a Mixolydian mode section.



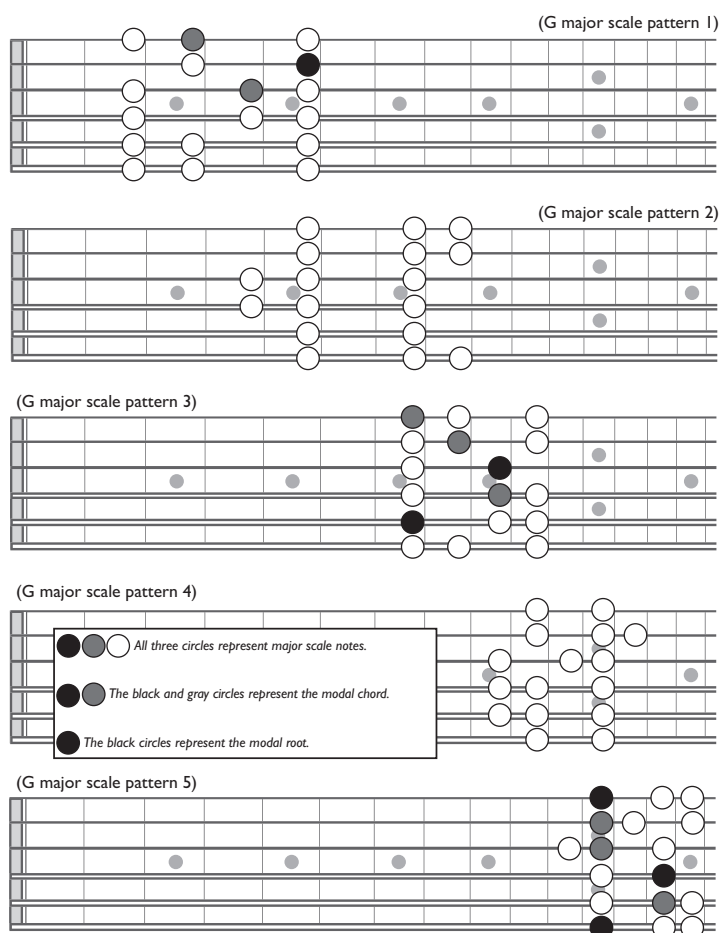
Mixolydian Mode

"Third Stone from the Sun" Jimi Hendrix.....	E Mixolydian (A)
"What I Like About You" The Romantics.....	E Mixolydian (A)
"Possum Kingdom" The Toadies.....	E Mixolydian (A)
"No Rain" Blind Melon.....	E Mixolydian (A)
"I'm So Glad" Cream.....	E Mixolydian (A)
"Norwegian Wood (This Bird Has Flown)" The Beatles.....	E Mixolydian (A)
"Free" Phish.....	Tune Down 1/2 Step E Mixolydian (A)
"Seven Bridges Road" The Eagles.....	D Mixolydian (G)
"What I Got" Sublime.....	D Mixolydian (G)
"Don't Tell Me" Madonna.....	D Mixolydian (G)
"Cinnamon Girl" Neil Young.....	D Mixolydian (G)
"Flagpole Sitta" Harvey Danger.....	D Mixolydian (G)
"Jessica" The Allman Brothers Band.....	A Mixolydian (D)
"Franklin's Tower" Grateful Dead.....	A Mixolydian (D)
"Take a Picture" Filter.....	A Mixolydian (D)
"Louie, Louie" The Kingsmen.....	A Mixolydian (D)
"Tequila" The Champs.....	F Mixolydian (B ^b)
"Get Down Tonight" KC and The Sunshine Band.....	F Mixolydian (B ^b)
"1999" Prince.....	F Mixolydian (B ^b)
"Take the Money and Run" Steve Miller Band.....	G Mixolydian (C)
"China Cat Sunflower" The Grateful Dead.....	G Mixolydian (C)
"Lowrider" War.....	G Mixolydian (C)
"Cult of Personality" Living Colour.....	G Mixolydian (C)
"Scarlet Begonias" The Grateful Dead.....	B Mixolydian (E)
"Taking Care of Business" Bachman-Turner Overdrive.....	C Mixolydian (F)
"On Broadway" The Drifters.....	A ^b Mixolydian (D ^b)
"Wrong Way" Sublime.....	Lots Of Key Changes!

Aeolian Mode (a.k.a. Natural Minor or Relative Minor)

The sound that's created when the sixth scale degree functions as the root is what the Greeks referred to as Aeolian. This mode is also known as the "natural minor scale" or "relative minor scale" as it's the standard all other types of minor scales are measured against. If you want to play an Aeolian scale, then start on the sixth scale degree and play until you reach an octave. Just as the sixth chord in a key is minor, the sixth mode has a minor tonality which is often described as dark and sad. It's one of the most commonly used modes, second only to Ionian.

Below is an example of how you might view the fretboard in Aeolian mode. In this diagram the parent major scale is G but everything is revolving around the sixth scale degree E (vi). This template can be shifted to produce Aeolian mode in other keys. The next page includes a list of songs that are either entirely in Aeolian mode or at least include a Aeolian mode section.



Aeolian Mode

"Maria Maria" Santana.....	<i>A Aeolian (C)</i>
"Losing My Religion" R.E.M.....	<i>A Aeolian (C)</i>
"First Tube" Phish.....	<i>A Aeolian (C)</i>
"Mr. Jones" Counting Crows.....	<i>A Aeolian (C)</i>
"Hash Pipe" Weezer.....	<i>A Aeolian (C)</i>
"Rhiannon" Fleetwood Mac.....	<i>A Aeolian (C)</i>
"Stairway to Heaven" Led Zeppelin.....	<i>Gtr. Solo A Aeolian (C)</i>
"Black Magic Woman" Santana.....	<i>D Aeolian (F)</i>
"Layla (acoustic)" Eric Clapton.....	<i>Chorus/Solos D Aeolian (F)</i>
"Schism" Tool.....	<i>D Aeolian (F)</i>
"Sultans of Swing" Dire Straits.....	<i>D Aeolian (F)</i>
"Two Step" Dave Matthews Band.....	<i>D Aeolian (F)</i>
"Ariels" System of a Down.....	<i>C Aeolian (E^b)</i>
"Sweet Dreams" Marilyn Manson.....	<i>C Aeolian (E^b)</i>
"You Give Love a Bad Name" Bon Jovi.....	<i>C Aeolian (E^b)</i>
"Smells Like Teen Spirit" Nirvana.....	<i>F Aeolian (A^b)</i>
"ATWA" System of a Down.....	<i>F Aeolian (A^b)</i>
"Black" Pearl Jam.....	<i>Gtr. Solo E Aeolian (G)</i>
"Last Resort" Papa Roach.....	<i>E Aeolian (G)</i>
"Paranoid" Black Sabbath.....	<i>E Aeolian (G)</i>
"The Thrill Is Gone" B.B. King.....	<i>B Aeolian (D)</i>
"Fade to Black" Metallica.....	<i>B Aeolian (D)</i>
"Building a Mystery" Sarah McLachlan.....	<i>B Aeolian (D)</i>
"Crazy Train" Ozzy Osbourne.....	<i>F[#] Aeolian (A)</i>
"Buddy Holly" Weezer.....	<i>Tune Down 1/2 Step F[#] Aeolian (A)</i>
"All Along the Watchtower" Jimi Hendrix.....	<i>Tune Down 1/2 Step C[#] Aeolian (E)</i>
"I Shot the Sheriff" Bob Marley/Eric Clapton.....	<i>G Aeolian (B^b)</i>
"Thank You" Dido.....	<i>G[#] Aeolian (B)</i>
"The Kids Aren't Alright" The Offspring.....	<i>B^b Aeolian (D^b)</i>

pick any key and have your buddy strum the **I** chord. Now, you play that same major scale over the chord. Sounds happy doesn't it? This is Ionian mode. Next, have your friend play some rhythm using only the **ii** chord while you continue to play the same major scale. The scale suddenly has a jazzy minor sound to it. Continue through the rest of the major scale chord pattern. Be sure to spend a few minutes on each chord so that you have time to hear its unique sound characteristics. Move the chord pattern around and do this same exercise in different keys.

If you don't have a friend to help you out (loser!), then record yourself playing the rhythm and then jam the scale during playback. This can be accomplished with computer software, a looping device or a handheld tape recorder. Anything will do. Or you can program accompaniment into a keyboard or sequencer if you have access to one.

Another great way to practice playing the modes is simply to play along with songs on CD. Use the examples listed in this chapter. Find copies and play along.

Key Changes

Songs, and even progressions, can include key changes. For example, some popular composition techniques include switching keys from verse to chorus, switching keys during the bridge to break up the monotony of a song, and switching keys during a final climactic chorus. Why not throw in a key change right in the middle of a progression for a bar or two?

Negotiating a melody, riff or guitar solo through key changes can be tough because you must switch scales (keys). Sometimes you barely have enough time to orientate yourself to a new key before it changes again. It's unlikely that you'll come across many guitar solos built over key changes in popular music because most reasonable guitar players don't like the hassle (jazz players on the other hand, love ever-changing environments). Try to avoid playing over key changes until you feel comfortable, and creative, with songs that stay in one key.

Modes and the Blues

Many guitar players think of blues as the minor pentatonic with a bunch of random notes frequently added. This explanation is inaccurate and of little

Locrian Mode

The seventh mode is never used. In Chapter 6 the seventh chord was omitted from the major scale chord pattern because it's so rare. Although the chord can be useful in some styles, it never functions as the root. The chord's flat fifth interval creates so much tension that it can never sound resolved. As a result nothing is in Locrian mode (that I'm aware of).

Practicing Modes

To effectively practice modes you need to play along with accompaniment. This is because a mode is created by whichever scale-tone functions as the root and you need to hear the scale played over the root. You can accomplish this by practicing with a friend, recording device or CD.

If you practice with a friend, have your friend play all the different chords from the major scale chord pattern while you play the same major scale over top. For example,

use. Blues music combines both the minor and major pentatonic (and the so-called “blues” scales) along with the major scale and its modes.

You’ve already been introduced to the major pentatonic and its fundamental role in a style that’s too often mistaken as strictly minor. Let’s now consider how the major scale and modes factor into the guitarist’s favorite jamscape: The blues.

If a blues song has a minor chord that functions as the root, then it’s either in Dorian or Aeolian mode. Although blues players rarely think of it as such because they so often limit themselves to using only pentatonic scales. If you compare the notes of the minor pentatonic to either an Aeolian or Dorian scale, then you’ll realize that all the pentatonic notes are in both modes. So the pentatonic ends up being a simplified version of the parent major scale either way. The modal scale includes two additional scale degrees (the 2nd and 7th counting from the modal root) that offer more melodic possibilities. Two good examples of blues songs in Aeolian mode are “The Thrill Is Gone” by B.B. King and “Maria, Maria” by Santana.

If a blues song has a major chord functioning as the root, then it’s probably a dominant seven chord which is anything with a major 3rd and a flat 7th (more on this in a later chapter). When dealing with plain major chords, as in “Give Me One Reason” by Tracy Chapman, the chords are still treated as if they are dominant sevens. In either case the correct mode is Mixolydian *but there’s more to this story!*

Blues V Chord Key Changes

You’ll learn in Chapter 10 that the V chord is the only major chord in a key that has a dominant seven (♭7). There’s only one V chord per key. Most blues songs revolve around what *appears* to be a I IV V chord progression but because each chord is some form of dominant seven, *every chord in a blues progression is the V chord of a different key!* You must switch major scales to correspond to each key! Yikes!

Or you can say screw it and simply play the pentatonic scale (major and minor in this case) over everything. The pentatonic approach can still sound great and it’s sure a lot easier. Just remember that there are more options available to you and sometimes a more complex approach is the better choice. At least with this new understanding, you can begin to make sense of the blues

and blues-based songs, that may have previously seemed all over the place.

You can see that the blues can be very simple or complex depending on the song and your approach. Most good players are aware of their options and like to mix things up.

Conclusion

This should clarify the often-misunderstood world of modes. Now you understand that any note, or chord, from the major scale can function as the root. The sound of the scale changes depending on which scale degree, or chord, you’re playing it over. The Greeks used seven names to label and identify the seven possible sounds. Your new knowledge will come in handy not only when you’re jamming, but also when you’re trying to figure out a song on your own or attempting to work out an original composition that’s stuck in your head. Maybe you’re thinking of something dark and jazzy. What mode could it be?

Modes DVD

For video demonstrations of modal sounds, chord progressions, and popular songs see my DVD entitled *Guitar Modes – The Modal Scales of Popular Music*. More details, a free preview, and ordering information is available at my web site: <http://Guitar-Music-Theory.com>

Talk to Me

Have any questions or comments about this chapter? Are there other song references that you think make good examples? I want to hear from you! Contact me through my web site: <http://Guitar-Music-Theory.com>

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Chapter 9

Intervals

About This Chapter

In this section you'll learn about the distances between notes, how they're measured and what they're called. You'll explore the most commonly used intervals and see the ways they can be arranged on the fretboard. There are lots of notation examples that demonstrate how these intervals are used. Also, you'll find plenty of references to popular songs.

Topics Covered

1. Distances between notes
2. Music's little ruler
3. Commonly used intervals
4. Inverted intervals
5. Playing in thirds
6. Playing in fifths
7. Using sixths
8. Octaves

Intervals

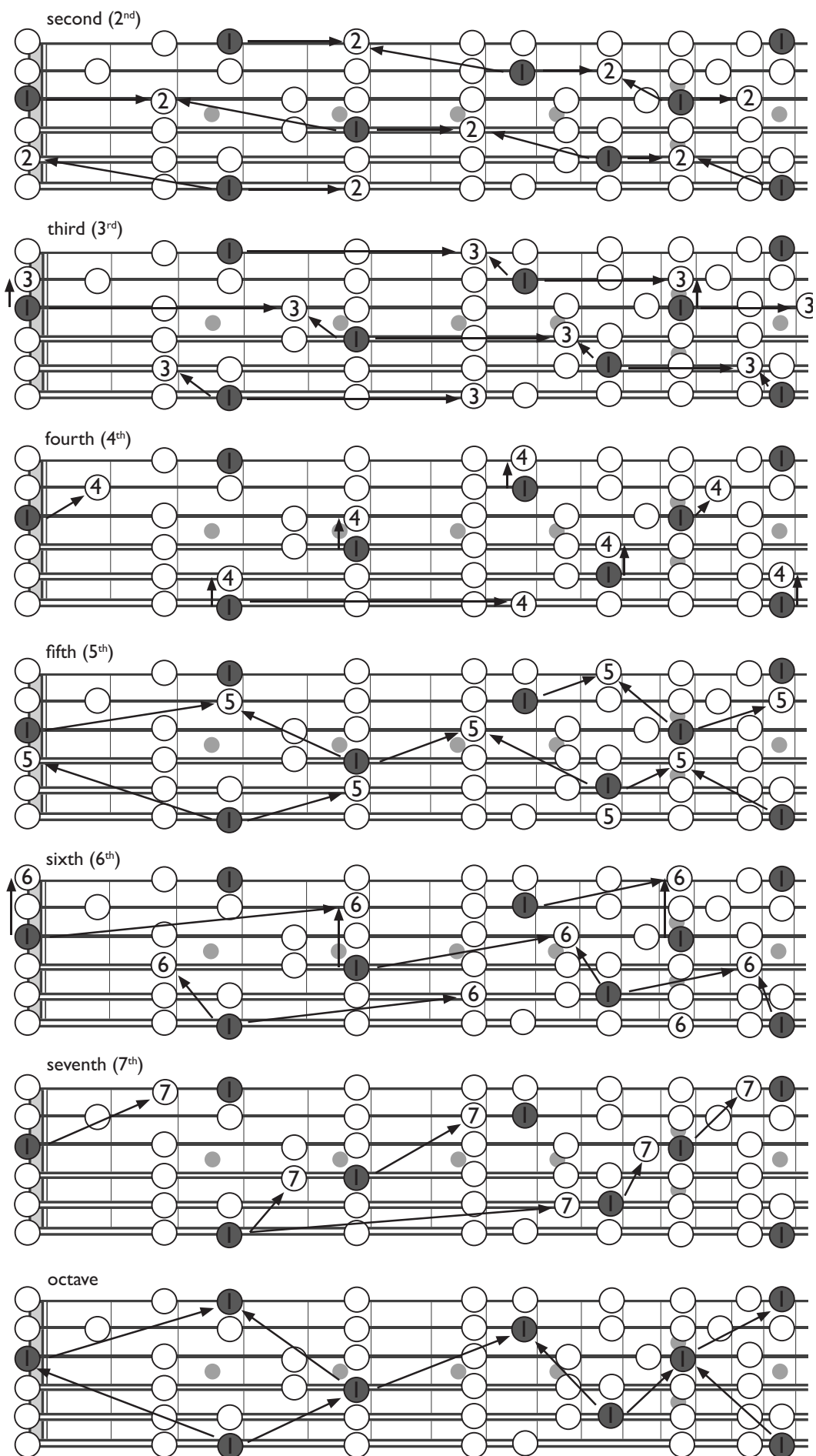
You can express the distance between notes in terms of frets, steps, or intervals. Frets is an acceptable term to use when dealing with other guitarists. Steps is a general musical term used and understood by all musicians. But thinking of the distance between notes as intervals is the most concise and universal way. This allows you to think of the distance as an independent unit of measure rather than a series of frets or steps.

Music's Little Ruler

The major scale is used to measure the distance between notes. For example, the distance between the first and second notes of the major scale is two frets, one whole-step or a "second" interval. The distance between the first and third notes of the major scale is four frets, two whole-steps or a "third" interval. There are seven notes in the major scale and thus seven intervals. An eighth term, octave, refers to a higher or lower occurrence of the same note.

The diagrams on the next page illustrate all the intervals derived from the major scale and how they look around the fretboard. This example uses the G major scale. Each interval is measured from G.

Intervals Derived from the Major Scale



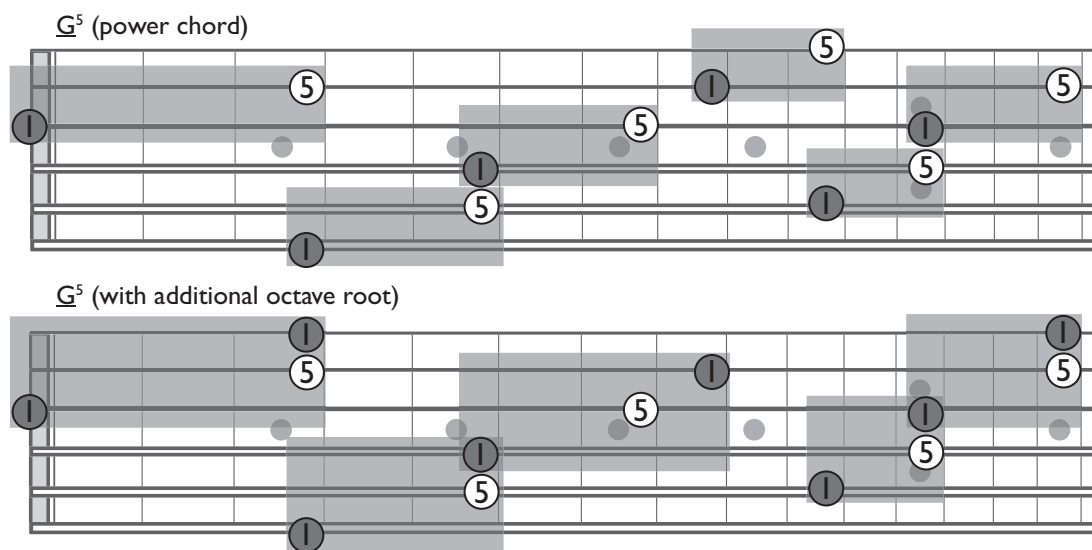
Two-Note Voicings

The term interval also applies to groups of two notes. Two-note voicings are used all the time by guitar and bass players. The most widely used two-note voicings are thirds, fifths and sometimes sixths. The other intervals are rarely used in this way.

Fifth (a.k.a. Power Chord)

A root and fifth create the so-called power chord that is so common in rock music. A power chord is represented by a number 5 following a root (i.e. \underline{A}^5 , \underline{B}^5 , \underline{C}^5 , etc.). This interval is easily found on the fretboard by moving over one string and up two frets (see diagram below). The exception is with strings three and two. If you play a root on string three, the fifth interval is over one string and up *three* frets. This is because the second string is tuned one fret lower than the others. If you only move up two frets, then the fifth interval will be one fret too low.

Let's take a look at what the power chord shape can look like on the fretboard. The diagrams below illustrate the two ways power chords are usually played. The shaded boxes isolate each shape. The first diagram illustrates the power chord shapes with one root and one fifth. The second diagram illustrates the power chords with an additional octave root in each shape. You can create shapes that include more than one occurrence of either or both notes.

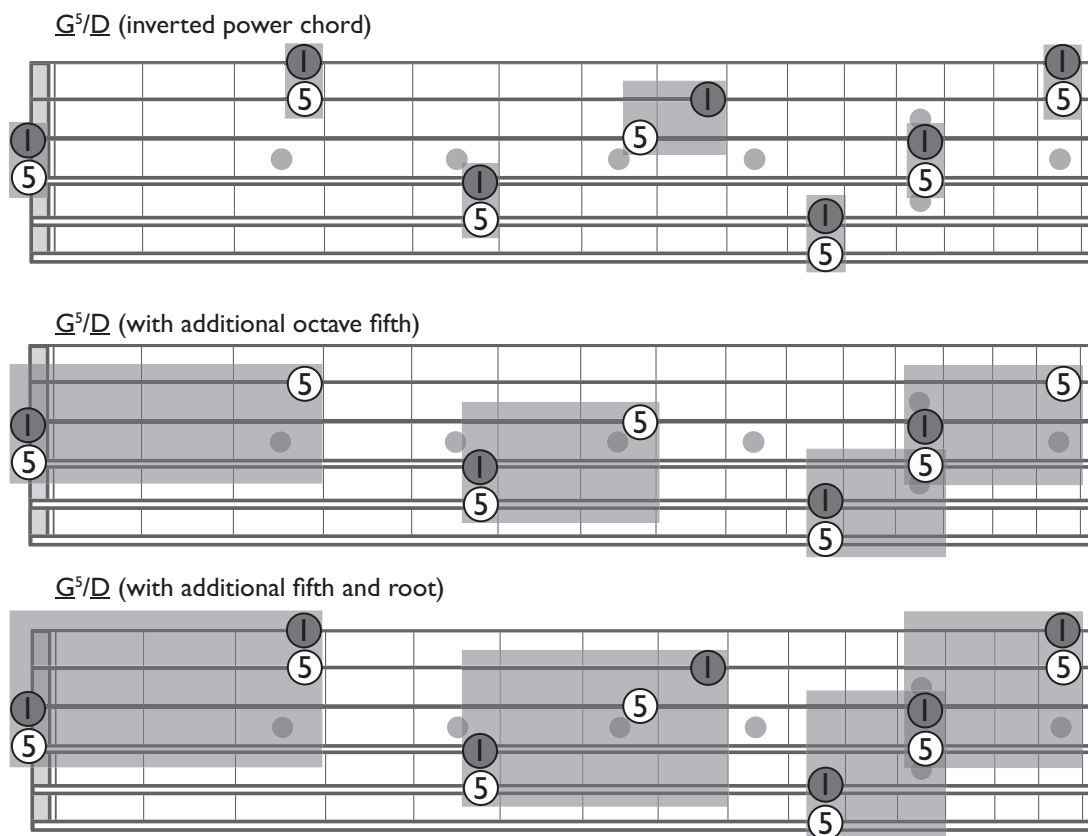


Inverted Power Chord

You can create an inverted power chord by placing the fifth interval in the lower position (“in the bass” as is commonly said). If you play a \underline{G}^5 with the fifth \underline{D} in the lower position, the inverted shape is called $\underline{G}^5/\underline{D}$. A backslash always indicates that a note other than the root is in the lowest position (bass position). Playing inverted power chords is very common in rock music. Having the fifth in the lower position creates a deeper tonality.

The diagrams on the next page illustrate the different ways you can build inverted power chords on the fretboard. An inverted power chord can create a shape where you have two notes on adjacent strings and in the same fret. This is usually mistaken as a “fourth” interval because players fail to realize that the note in the lower position isn’t the root. If you ever come across what appears to be a root and fourth interval, then it’s probably an inverted power chord. The famous intro to “Smoke on the Water” by Deep Purple is based on this shape.

Inverted Power Chord



Playing the Major Scale in Fifths

To play a major scale stacked in fifths means to play through the scale, in groups of two, with one note always a fifth ahead. When you do this, make sure to use only scale tones. The result is that every scale degree has a perfect fifth with the exception of the last, which has a flat fifth (one fret lower than a perfect fifth). This concept of playing in fifths can be better understood by examining the notation example below. The example on the next page notates the same concept with inverted fifths.

Playing in Fifths

Key of G

Guitar

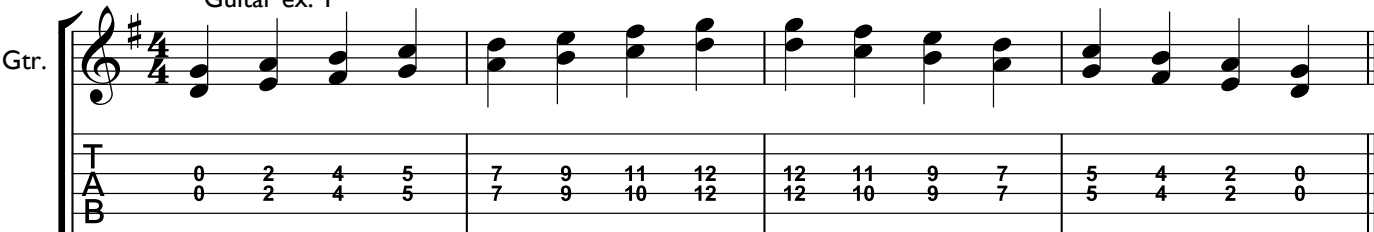
Gtr.

Bass

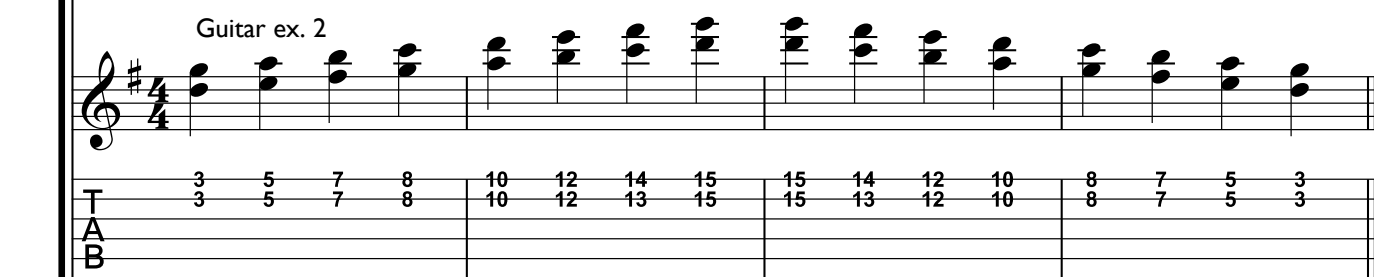
Playing Inverted Fifths

Key of G

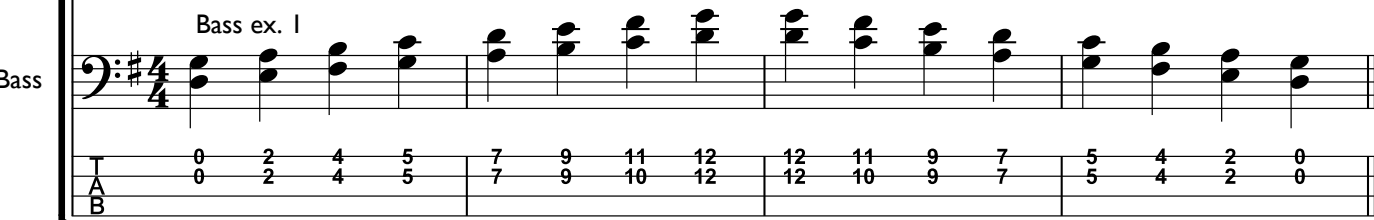
Guitar ex. 1

Gtr. 

Guitar ex. 2



Bass ex. 1

Bass 

Power Chord Songs

Power chords are extremely common so you probably don't need a list of song examples. The songs below are just a few examples that use inverted power chords with the fifth in the bass. Some of these tunes use the shapes from the notation example above.

Inverted Power Chords

"The Wind Cries Mary" Jimi Hendrix.....	Intro
"Come Out and Play" The Offspring.....	Intro
"Yellow Ledbetter" Pearl Jam.....	Intro
"Smoke on the Water" Deep Purple.....	Intro
"Tomorrow" Silverchair.....	Chorus
"Wish You Were Here" Incubus.....	Intro & Chorus
"Photograph" Weezer.....	Verse & Chorus
"Hash Pipe" Weezer.....	Chorus & Solo
"Glycerine" Bush.....	Verse
"Stellar" Incubus.....	Intro & Verse
"Money for Nothing" Dire Straits.....	Intro/Verse Riff
"Band on the Run" Wings.....	Intro Lead Gtr.
"Better Together" Jack Johnson.....	Gtr. Intro

Bass

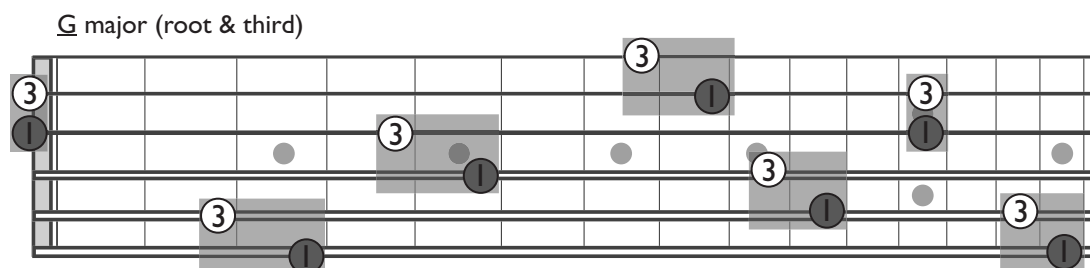
Bass players occasionally play power chords, although it's more common for them to alternate between a root and fifth rather than to play them simultaneously. In the following examples the bass players actually use power chords like a guitar player would.

Bass Power Chords

"Bombtrack" Rage Against the Machine.....	F# Minor Pent. Riff
"Counting Blue Cars" Dishwalla.....	Verse & Chorus
"What's My Age Again?" Blink 182.....	Ending
"Red Barchetta" Rush.....	Intro
"The Pass" Rush.....	Intro
"Red House" The Jimi Hendrix Experience.....	Solo

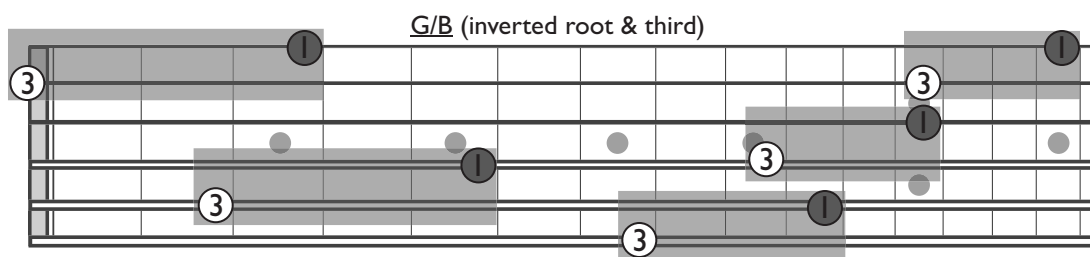
Major Third

A third interval is easily found on the fretboard by moving over one string and back one fret. The exception is with strings three and two. If you play a root on string three, the third interval is over one string in the *same* fret as the root. This is because the second string is tuned one fret lower than the others. If you move back one fret, the third interval will be one fret too low. Unlike the power chord, there are no other names for this interval. Additionally, you'll never see a note preceded by a number three to represent a third interval. Below you can see what a root and third looks like in different positions on the fretboard.



Inverted Third

You can create an inverted third interval by placing the third, in this case B, in the lower position. The inverted shape is called G/B. A backslash always indicates that a note other than the root is in the lowest position. Playing inverted thirds happens occasionally in rock music. An inverted third can create a shape that looks like a power chord but with an additional fret between the two notes. If you ever come across this shape, you'll know it's an inverted root and third.



Exercise

1. Play a D note on string five. Notice that its third, F#, is back one fret on string four as used in "Walking on the Sun" by Smash Mouth.
2. Take the same third as above but transpose the root up an octave. Now you have an inverted third interval as used in "Cold Gin" by Kiss.
3. Take this shape and transpose the whole thing (both notes) down an octave. Now you have the third on string six and the root back on string five as used in "Stay Together for the Kids" by Blink 182.
4. Play the root D on string three. Notice that the third F# is over one string *but in the very same fret*. This is because of the way the second string is tuned. Playing thirds in this way is done in "Brown Eyed Girl" by Van Morrison and "What I Got" by Sublime.
5. You can also combine intervals that are more than an octave apart. For example, play a root G on string six and a third B on string five. Now transpose the third interval up an octave but leave the root unchanged. You now have a

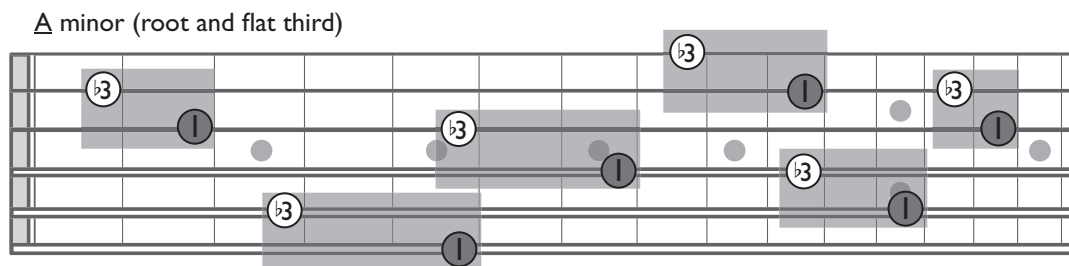
root on string six and a third all the way over on string three. Similar shapes are used in “Scar Tissue” by Red Hot Chili Peppers. Some musicians refer to this as a “tenth” because the transposed third is ten notes away from the original root. A tenth and a third are actually the same note.

CAGED Template

All of the chord shapes and arpeggios that you learned in Chapter 3 consisted of roots, thirds and fifths. The actual intervals weren’t outlined because it’s more beneficial to focus on visualizing the shapes and patterns. With your new knowledge of intervals though, the CAGED template can take on a whole new meaning. Can you play through the arpeggios and figure out what the intervals are?

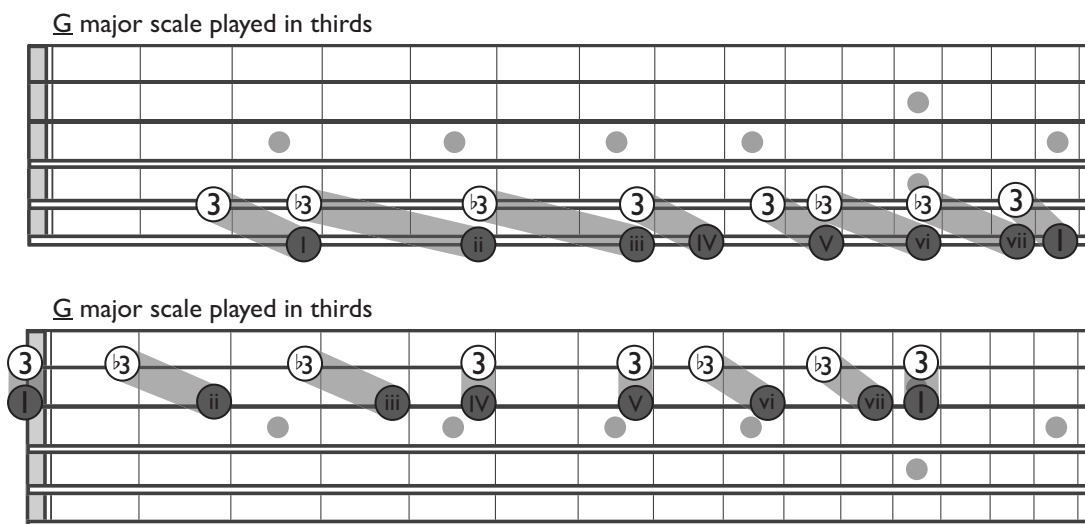
Minor Third (a.k.a. Flat Third)

A minor third is simply one fret lower than a major third hence the term “flat third.” Try going through all the third interval shapes you learned and changing them to minor third intervals. This new shape is illustrated for you in the diagram below using A as the root. Notice that when playing a root on string three the minor third is over one string and back one fret. It looks like a major third shape, doesn’t it? It’s not! Don’t get thrown off by the second string’s special tuning.



Playing the Major Scale Stacked in Thirds

To play a major scale stacked in thirds means to play through the scale, in groups of two, with one note always a third ahead. Make sure to use only major scale tones. The result is that the first, fourth and fifth scale degrees have major thirds while the second, third, sixth and seventh scale degrees have minor thirds. Look below for a sampling of the ways you can do this in the key of G. The next two pages provide notation examples of the same concept but with even more possibilities. Some examples use inverted thirds. Remember that you can play intervals in any major scale (key) or in any position.



Playing in Thirds

Key of G

Guitar ex. 1

Measures 1-4 of Guitar exercise 1. The staff shows a sequence of chords: D major (D-F-A), E minor (E-G-B), F major (F-A-C), G major (G-B-D), A major (A-C-E), B major (B-D-F), C major (C-E-G), and D major (D-F-A). The fret numbers are indicated below the notes.

T																
A	2	3	5	7	9	10	12	14	14	12	10	9	7	5	3	2
B	3	5	7	8	10	12	14	15	15	14	12	10	8	7	5	3

Guitar ex. 2

Measures 1-4 of Guitar exercise 2. The staff shows a sequence of chords: D major (D-F-A), E minor (E-G-B), F major (F-A-C), G major (G-B-D), A major (A-C-E), B major (B-D-F), C major (C-E-G), and D major (D-F-A). The fret numbers are indicated below the notes.

T	0	1	3	5	7	8	10	12	12	10	8	7	5	3	1	0
A	0	2	4	5	7	9	11	12	12	11	9	7	5	4	2	0
B																

Guitar ex. 3

Measures 1-4 of Guitar exercise 3. The staff shows a sequence of chords: D major (D-F-A), E minor (E-G-B), F major (F-A-C), G major (G-B-D), A major (A-C-E), B major (B-D-F), C major (C-E-G), and D major (D-F-A). The fret numbers are indicated below the notes.

T	7	8	10	12	14	15	17	19	19	17	15	14	12	10	8	7
A	8	10	12	13	15	17	19	20	20	19	17	15	13	12	10	8
B																

Bass ex. 1

Measures 1-4 of Bass exercise 1. The staff shows a sequence of chords: D major (D-F-A), E minor (E-G-B), F major (F-A-C), G major (G-B-D), A major (A-C-E), B major (B-D-F), C major (C-E-G), and D major (D-F-A). The fret numbers are indicated below the notes.

T																
A	2	3	5	7	9	10	12	14	14	12	10	9	7	5	3	2
B	3	5	7	8	10	12	14	15	15	14	12	10	8	7	5	3

Bass ex. 2

Measures 1-4 of Bass exercise 2. The staff shows a sequence of chords: D major (D-F-A), E minor (E-G-B), F major (F-A-C), G major (G-B-D), A major (A-C-E), B major (B-D-F), C major (C-E-G), and D major (D-F-A). The fret numbers are indicated below the notes.

T	4	5	7	9	11	12	14	16	16	14	12	11	9	7	5	4
A	5	7	9	10	12	14	16	17	17	16	14	12	10	9	7	5
B																

Inverted Thirds

Key of G

Gtr. **Guitar ex. 1**

T	5	7	9	10	12	14	16	17	17	16	14	12	10	9	7	5
A	7	8	10	12	14	15	17	19	19	17	15	14	12	10	8	7
B																

Guitar ex. 2

T	0	2	4	5	7	9	11	12	12	11	9	7	5	4	2	0
A	2	3	5	7	9	10	12	14	14	12	10	9	7	5	3	2
B																

Guitar ex. 3

T	8	10	12	13	15	17	19	20	20	19	17	15	13	12	10	8
A	9	10	12	14	16	17	19	21	21	19	17	16	14	12	10	9
B																

Guitar ex. 4

T	3	5	7	8	10	12	14	15	15	14	12	10	8	7	5	3
A	4	5	7	9	11	12	14	16	16	14	12	11	9	7	5	4
B																

Bass **Bass ex. 1**

T	5	7	9	10	12	14	16	17	17	16	14	12	10	9	7	5
A	7	8	10	12	14	15	17	19	19	17	15	14	12	10	8	7
B																

Bass ex. 2

T	0	2	4	5	7	9	11	12	12	11	9	7	5	4	2	0
A	2	3	5	7	9	10	12	14	14	12	10	9	7	5	3	2
B																

Songs with Thirds

Here's a list of tunes that use both major and minor third intervals, some of which are inverted.

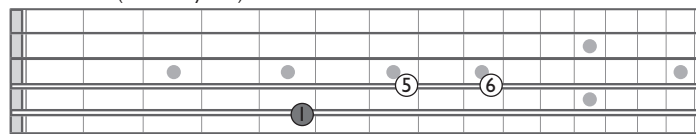
Thirds

"Brown Eyed Girl" Van Morrison.....	Elec. Gtr. Throughout
"Blackbird" The Beatles.....	Acous. Gtr. Throughout
"Two Step" Dave Matthews Band.....	Acous. Gtr. Throughout
"Tripping Billies" Dave Matthews Band.....	Acous. Gtr. Throughout
"Lover Lay Down" Dave Matthews Band.....	Acous. Gtr. Throughout
"Grey Street" Dave Matthews Band.....	Acous. Gtr. Throughout
"My Best Friend's Girlfriend" The Cars.....	Gtr. Intro
"Rhianon" Fleetwood Mac.....	Gtr. Intro
"The Kids Aren't Alright" The Offspring.....	Gtr. Intro
"La Bamba" Los Lobos.....	Gtr. Intro
"Peace Train" Cat Stevens.....	Gtr. Intro
"Down Boys" Warrant.....	Gtr. Intro
"Wanted Dead or Alive" Bon Jovi.....	Gtr. Intro
"Heaven" Los Lonely Boys.....	Gtr. Intro
"Patience" Guns and Roses.....	Gtr. 3 Intro
"Ex-girlfriend" No Doubt.....	Nylon Str. Acous. Intro
"ATWA" System of a Down.....	Gtr. Intro, Drop-D Tuning
"Chop Suey!" System of a Down.....	Gtr. Intro, Tune Down 1 Step Drop-D
"To Be with You" Mr. Big.....	Gtr. Solo
"Flavor of the Weak" American Hi-Fi.....	Gtr. Solo
"What I Got" Sublime.....	Gtr. Solo
"Your Body is a Wonderland" John Mayer.....	Gtr. Solo
"When the Sun Goes Down" Kenny Chesney.....	Gtr. Riff
"Cold Gin" Kiss.....	Gtr. Riff
"Walking on the Sun" Smash Mouth.....	Bass Intro, Organ/Gtr. Riff
"Never Let You Go" Third Eye Blind.....	Gtr. Bridge
"How Come" Ray LaMontagne.....	Lead Gtr. Chorus
"The Ballad of John and Yoko" The Beatles.....	Lead Gtr. Chorus
"Stay Together for the Kids" Blink 182.....	Gtr. Chorus
"Have You Ever Really Loved a Woman?" Bryan Adams.....	Gtr. Chorus
"Adam's Song" Blink 182.....	Gtr. Verse
"Scar Tissue" Red Hot Chili Peppers.....	Gtr. Intro/Verse
"Caught Up In You" 38 Special.....	Gtr. Intro & Verse
"Days of the Week" Stone Temple Pilots.....	Gtr. Verse & Chorus
"Fat Lip" Sum 41.....	Gtr. 4 Pre-Chorus
"Walk on the Wild Side" Lou Reed.....	Bass
"Schism" Tool.....	Bass

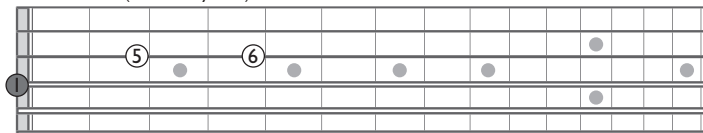
Sixth

This interval is for all you rock, rhythm and blues lovers. The common "shuffle rhythm" that accompanies this style relies on alternating between a root and fifth, and a root and sixth. This is illustrated below followed by a short list of songs that utilize this common technique. Also, check out the notation example on the next page.

sixth interval ("shuffle rhythm")



sixth interval ("shuffle rhythm")



Sixth

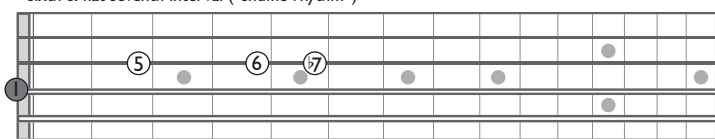
"Jet Airliner" Steve Miller Band.....	Rhy. Gtr. Throughout
"Johnny B. Goode" Chuck Berry.....	Rhy. Gtr. Throughout
"Love Struck Baby" Stevie Ray Vaughan.....	Rhy. Gtr. Throughout
"Life by the Drop" Stevie Ray Vaughan.....	Rhy. Gtr. Throughout
"Keep Your Hands to Yourself" Georgia Satellites.....	Rhy. Gtr. Throughout
"Taking Care of Business" Bachman-Turner Overdrive.....	Rhy. Gtr. Throughout
"Rocky Mountain Way" Joe Walsh.....	Gtr. Intro & Chorus
"Truckin'" The Grateful Dead.....	Rhy. Gtr. Verse
"I Want You to Want Me" Cheap Trick.....	Rhy. Gtr. Chorus
"Sweet Home Alabama" Lynyrd Skynyrd.....	Gtr. Chorus
"Red House" Jimi Hendrix.....	Bass

This technique is frequently used together with a flat seventh interval. A flat seventh is one fret lower than a major seventh, or one fret higher than a sixth. Check it out below along with the notation example on the next page. The list on page 128 includes a few tunes that use a sixth in combination with a flat seventh.

sixth & flat seventh interval ("shuffle rhythm")



sixth & flat seventh interval ("shuffle rhythm")



Sixths Shuffle Rhythm

Key of G

Gtr. G^5 G^6 C^5 C^6 D^5 D^6

Bass

T A B

5 5 7 7 5 5 7 7 3 3 3 3 3 3 3 3 2 2 4 4 2 2 4 4 5 5 7 7 5 3 3 3 3 3

12 12 14 14 12 12 14 14 10 10 10 10 10 10 10 10 12 12 14 14 12 12 14 14 10 10 10 10 10 10 10 10 12 12 14 14 12 10 10 10 10 10

Sixths and Flat Sevenths

Key of G

Gtr. G^5 G^6 G^7 C^5 C^6 C^7 D^5 D^6 D^7

Bass

T A B

5 5 7 7 8 8 7 7 3 3 3 3 3 3 3 3 5 5 7 7 8 8 7 7 2 2 4 4 5 5 4 4 5 5 7 7 5 3 3 3 3 3 3 3 0 0 0 0 0 0 0 0 0 0 0 0 12 12 14 14 12 10 10 10 10 10

12 12 14 14 15 15 14 14 10 10 10 10 10 10 10 10 2 2 4 4 5 5 4 4 12 12 14 14 12 10 10 10 10 10

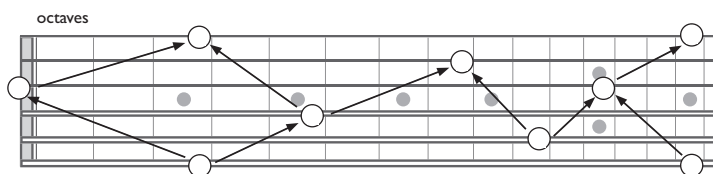
Sixth and Flat Seventh

"Born to Be Wild" Steppenwolf.....	Gtr. Intro
"Rock and Roll" Led Zeppelin.....	Gtr. Intro
"Riding With the King" B.B. King & Eric Clapton.....	Gtr. Intro
"Tell Me" Stevie Ray Vaughan.....	Gtr. Intro
"Once Bitten Twice Shy" Great White.....	Gtr. Intro
"Ice Cream Man" Van Halen.....	Acous. Gtr. Intro
"Custard Pie" Led Zeppelin.....	Gtr. Intro & Verse
"Gimme Three Steps" Lynyrd Skynyrd.....	Gtr. Verse
"Walk This Way" Aerosmith.....	Gtr. Verse & Chorus
"Sunspot Baby" Bob Seger and The Silver Bullet Band.....	Gtr. Chorus

Octave

Octaves are higher or lower occurrences of the same note. Octaves are two strings apart, and two frets apart when your index finger is on string six or five. Octaves are two strings apart, and *three* frets apart when your index finger is on string four or three. This is because the second string comes into play and is tuned one half-step lower.

When your index finger is on either string one or two, then you can go down an octave by moving over three strings and up two frets. When your index finger is on either string three or four, then you can go down an octave by moving over three strings and up three frets.



Finally, strings one and six are both tuned to E and are two octaves apart. The notes on both strings are the same in each fret.

Songs with Octaves

Playing octaves is extremely common especially in alternative rock music. A list of good examples is provided in the next column. To finger octaves you need to mute unwanted strings because octaves are two strings apart. This is accomplished by leaning your fingers back and touching the strings you intend to silence.

Octaves

"Fire" Jimi Hendrix.....	Gtr. Intro
"My Own Worst Enemy" Lit.....	Gtr. Intro
"In and Out of Love" Bon Jovi.....	Gtr. Intro, Chorus
"1979" The Smashing Pumpkins.....	Gtr. Intro, Verse
"Kashmir" Led Zeppelin.....	Gtr. Riff
"Immigrant Song" Led Zeppelin.....	Gtr. Riff
"Learn to Fly" Foo Fighters.....	Gtr. Riff A
"Flagpole Sitta" Harvey Danger.....	Gtr. Riff A
"My Sharona" The Knack.....	Gtr./Bass Riff
"Click Click Boom" Saliva.....	Gtr. 3 Bridge
"Your Disease" Saliva.....	Gtr. Riff B Bridge
"Photograph" Weezer.....	Gtr. Solo
"Closing Time" Semisonic.....	Gtr. Solo
"Riviera Paradise" Stevie Ray Vaughan & Double Trouble.....	Gtr. Solo
"Flavor of the Weak" American Hi-Fi.....	Gtr. 3 Pre-Chorus
"Rock the Party (Off the Hook)" P.O.D. (Payable On Death).....	Gtr. Chorus
"Adam's Song" Blink 182.....	Gtr. Chorus
"I Love Rock 'N Roll" Joan Jett & The Blackhearts.....	Gtr. 3 Outro-Chorus
"All the Small Things" Blink 182.....	Gtr. Interlude
"Killing in the Name" Rage Against the Machine.....	Gtr. Interlude, Bridge
"In Too Deep" Sum 41.....	Gtr. Interlude, Bridge
"Wish You Were Here" Incubus.....	Gtr. Interlude, Bridge
"Spiders" System of a Down.....	Gtr. Chorus, Interlude, Solo
"Third Stone from the Sun" Jimi Hendrix.....	Gtr. Main Melody
"Higher Ground" Red Hot Chili Peppers.....	Bass
"Aeroplane" Red Hot Chili Peppers.....	Bass
"Love Rollercoaster" Ohio Players/Red Hot Chili Peppers.....	Bass
"Paranoid" Black Sabbath.....	Bass
"Fly Away" Lenny Kravitz.....	Bass

Conclusion

Now you know all about the distances between notes, how they're measured and what they're called. You've explored the most commonly used intervals and the ways they can be arranged on the fretboard. The song references demonstrate how these intervals are used in popular music.

Talk to Me

Have any questions or comments about this chapter? Are there other song references that you think make good examples? I want to hear from you! Contact me through my web site: <http://Guitar-Music-Theory.com>

Chapter 10

Chord Extensions

About This Chapter

In Chapter 6 you learned that a chord is built from a group of three major scale notes called triads. Triads include a root, third and fifth. Adding any other intervals creates chords with extensions. In this section you'll learn some examples of how to add the remaining intervals of the major scale (second, fourth, sixth and seventh) to chords. You'll see how some of these intervals fit into the CAGED template and what songs will help you put these new chords to good use.

Topics Covered

1. Chord pattern with sevenths
2. CAGED template with sevenths
3. Seconds, fourths, sixths, ninths
4. Chord building chart
5. Sample chord shapes
6. Song references

7ths

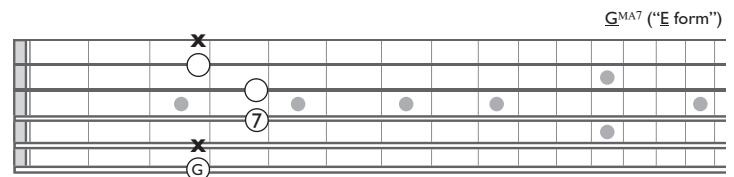
Remember in Chapter 6 when you used the G major scale to build chords and the major scale chord pattern? Let's take that same concept a step farther by adding a 7th interval to each chord. In the steps that follow, you'll be using the G major scale and its chord pattern.

(I) Major Seven

Let's add a 7th to the I chord G. Play the notes of the G major scale, starting on G, and count until you reach the seventh note. The seventh note is F#. When you add this note to a G chord, the new chord is Gmajor7.

In the diagrams below you can see a common way a 7th

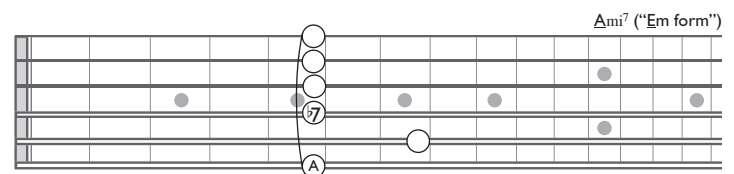
interval is added to an "E form" barre chord. Notice how some superfluous notes have been omitted in order to create a shape that's both easy to finger (no barre) and pleasant in tone. Be sure to mute the omitted strings! Like an "E form" barre chord, the root is under your index finger on string six.



This is a very common major seven chord shape but it's usually only found in music like jazz where major seven chords are used frequently. If you're interested in hearing this particular shape utilized in popular music, check out the verse to "Miserable" by Lit. In this song the shape is moved to the sixth fret and played as an Bbmajor7 (guitars are tuned down one half-step).

(ii) Minor Seven

Next let's add a 7th to the ii chord Am. Play the notes of the G major scale starting on the second scale degree A until you reach the seventh note. In the G major scale, G is seven notes away from A. This G can easily be added to an Am barre chord ("Em form") by simply removing your pinky finger. With the addition of the G note the chord becomes Aminor7.



Minor seven chords are very common in popular music. The following songs use this specific minor seven shape, or pieces thereof.

Minor Seven (“Em form”)

“Eye of the Tiger” Survivor.....	Gtr. Intro
“Fly Like an Eagle” Steve Miller Band.....	Gtr. Intro
“Cold Shot” Stevie Ray Vaughan.....	Gtr. Intro Verse/Chorus
“Tears in Heaven” Eric Clapton.....	Gtr. Intro/Chorus
“Change the World” Eric Clapton.....	Gtr. Chorus
“Let It Ride” Bachman-Turner Overdrive.....	Gtr. 2 Intro/Chorus
“You Ain’t Seen Nothin’ Yet” Bachman-Turner Overdrive.....	Gtr. Pre-Chorus
“Jump, Jive & Wail” Brian Setzer Orchestra.....	Gtr. Second Verse
“Oye Como Va” Santana.....	Gtr. 1, Organ Arr. For Guitar
“Do Right” Jimmie’s Chicken Shack.....	Gtr. Throughout
“Daughters” John Mayer.....	Gtr. Intro/Verse Bm7

Major and Flat Seventh

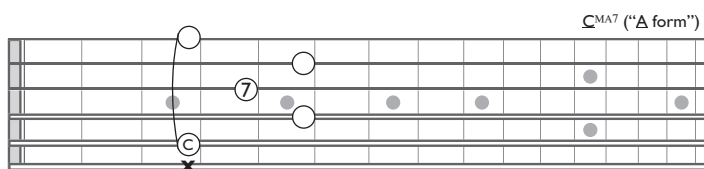
When you compare the 7th intervals of the I and ii chords you’ll notice that they’re different. In the case of the I chord, the 7th interval is one fret shy of an octave. This is called a major seven. In the case of the ii chord, the 7th interval is two frets, one whole-step, shy of the octave. This interval is called a flat seven (b7) because it’s one fret lower than a major seven.

(iii) Minor Seven

Moving on. Let’s add 7ths to the rest of the template. The iii chord B minor becomes a minor seven and the shape is identical to the ii chord.

(IV) Major Seventh

The IV chord C becomes a major seven like the I chord. In the diagram you can see a common way to add a 7th interval to an “A form” barre chord. This shape is more common than the previous major seven shape and more likely to be seen in popular music. In the next column is a short list of tunes that utilize this shape.



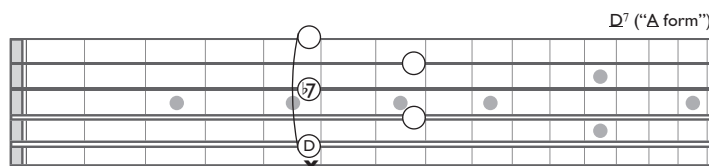
Major Seven (“A form”)

“Under the Bridge” Red Hot Chili Peppers.....	Gtr. Verse
“Drive” Incubus.....	Gtr. Intro/Verse
“Show Me the Way” Peter Frampton.....	Gtr. 1 Intro/Verse
“You’ve Got a Friend” James Taylor.....	Gtr. Chorus
“Everyday” Dave Matthews Band.....	Gtr. Intro/Verse
“That Thing You Do” The Oneders.....	Gtr. Ending

Dominant Seven (V)

The V chord D is unique in that it’s a major chord, like the I and IV, yet it has a flat seven interval like the minor chords. This special combination is called a “dominant” seven chord. For some strange reason a dominant seven chord is simply referred to and written as 7. For example G^{MA7}, A^{mi7}, B^{mi7}, C^{MA7}, D⁷. The reason for this remains a mystery to me but that’s how it goes.

In the diagram you can see how to add this interval to an “A form” barre chord. Dominant seven chords are very common in popular music. Following the diagram is a list of songs that use this specific dominant seven chord shape.

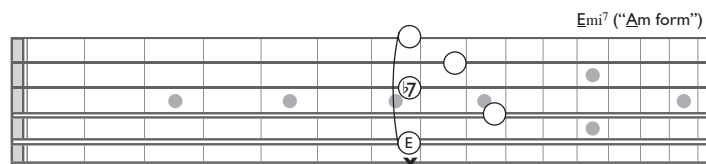


Dominant Seven (“A form”)

“Alive” Pearl Jam (Bridge 2:48 Open A7)
“Black” Pearl Jam (Intro E7)
“Papa’s Got a Brand New Bag” James Brown (Verse End E7)
“Drive” Incubus (Pre-Chorus 0:42)
“Nothing Else Matters” Metallica (Verse B7)

(vi) Minor Seven

Next is the vi chord E minor. It becomes a minor seven chord like ii and iii. In the diagram you can see how to add a 7th interval to an “Am form” barre chord. Coincidentally, this is accomplished by removing your pinky finger, just as with chords ii and iii.



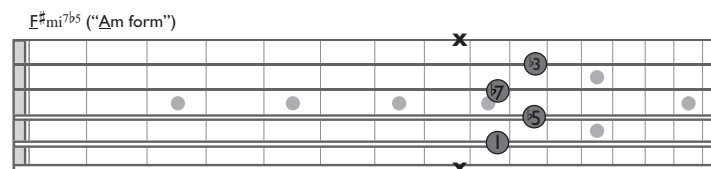
This shape is used more than any other seven chord. If you eliminate the root on string five, then it's easy to get this shape confused with a partial "C form" barre chord. The following songs all make good use of this very popular chord shape.

Minor Seven ("Am form")

"Change the World" Eric Clapton.....	Gtr. Chorus
"Killing in the Name" Rage Against the Machine.....	Gtr. 2 Bridge
"Do Right" Jimmie's Chicken Shack.....	Gtr. Throughout
"Long Train Running" The Doobie Brothers.....	Gtr. Intro/Verse
"Tears in Heaven" Eric Clapton.....	Gtr. Chorus
"Let it Ride" Bachman-Turner Overdrive.....	Gtr. Intro/Verse
"The Hook" Blues Traveler.....	Gtr. Throughout
"Say It Ain't So" Weezer.....	Gtr. Intro
"Black Water" The Doobie Brothers.....	Gtr. Intro/Verse

(vii) Minor Seven Flat Five

Lastly, let's add a 7th interval to the vii chord $F^{\#}mi^{b5}$. This was left out of the chord pattern from Chapter 3 because it's seldom used. If you ever do come across it, then it's most likely to have a 7th in it. The chord that's created is called $F^{\#}mi^{7b5}$ (that's a mouthful). It's occasionally referred to as " $F^{\#}$ half diminished" because it's almost a diminished chord (diminished chords are not covered in this book). It's identical to the vi chord E minor with exception to the flat fifth interval but the fingering ends up being quite different. Below you can take a look at this chord shape followed by a list of a few tunes that actually use it.



Minor Seven Flat Five

"Change the World" Eric Clapton.....	Gtr. Chorus
"Smooth" Santana.....	Rhy. Arr. For Gtr.
"I Will Survive" Gloria Gaynor.....	

That completes the major scale chord pattern. The next column contains an overview of the chords with 7ths. Can you play through the whole template with sevenths?

Major Scale Chord Pattern with 7ths

I major seven (usually written G^{MA7} or G^{Δ})

ii minor seven (usually written A^{mi7} , A^{m7} or A^{-7})

iii minor seven (B^{mi7} , B^{m7} or B^{-7})

IV major seven (C^{MA7} or C^{Δ})

V dominant seven (always written simply as D^7)

vi minor seven (E^{mi7} , E^{m7} or E^{-7})

vii minor seven flat five ($F^{\#}mi^{7b5}$, $F^{\#}m^{7b5}$, $F^{\#-7b5}$)

Changing Keys

Just like the original major scale chord pattern, all keys and all intervals are the same. In other words, the I chord is always a major seven regardless of key, the ii chord is always a minor seven, etc. Once you have the new chord shapes with 7ths memorized, you can slide the chord pattern around the fretboard and play in different keys.

Changing Strings

In order to complete the chord pattern starting on the fifth string, you'll have to learn a few new shapes. You already know how to play major and minor seven chords on both strings six and five, but the dominant seven and minor seven flat five shapes so far have not been illustrated on string six.

The notation examples on the next two pages demonstrate how to play through the chord pattern with sevenths. The first example uses the key of G starting on string six. The second example uses the key of C starting on string five. The C example shows you two new chord shapes that are necessary to complete the pattern in this position. They're the V chord G7 on string six and the vii chord B mi^{7b5} on string six.

Chord Pattern with Sevenths

Key of G

Imaj7 iimin7 iiimin7 IVmaj7 V7 vimin7 viimin7b5 Imaj7

Gtr.

T 3 5 7 3 5 7 10 10
A 4 5 7 5 7 8 9 12
B 4 5 7 4 5 7 10 12
3 5 7 3 5 7 9 10

Bass

T 3 2 5 4 3 7 5 5 9 7 2 5 4 5 4 7 5 5 9 7 9 7 10 9 12 11
A 3 2 5 4 3 7 5 5 9 7 2 5 4 5 4 7 5 5 9 7 9 7 10 9 12 11
B 3 2 5 4 3 7 5 5 9 7 2 5 4 5 4 7 5 5 9 7 9 7 10 9 12 11

5 Imaj7 viimin7b5 vimin7 V7 IVmaj7 iiimin7 iimin7 Imaj7

T 10 10 7 5 3 7 5 3
A 12 10 8 7 5 7 5 4
B 11 9 7 5 4 7 7 5
12 10 9 7 5 9 7 3
10 9 7 5 3 7 5 3

T 11 9 7 7 4 5 2 7 5 5 7 3 4 5 2 3
A 12 9 10 7 9 9 5 7 9 5 4 5 2 3
B 11 9 10 7 9 7 9 5 7 5 7 3 5 5 2 3

Chord Pattern with Sevenths

Key of C

Gtr.

Imaj7 iimin7 iiimin7 IVmaj7 V7 vimin7 viimin7b5 Imaj7

T 3 5 7 3 3 5 6 8
A 4 6 8 4 4 5 7 9
B 5 7 9 5 5 7 7 9
3 5 7 1 3 5 7 8

Bass

T 3 2 5 4 3 7 5 7 5 9 7 2 3 2 5 3 3 7 5 7 5 8 7 10 9
A 3 5 7 1 3 5 7 8 7 10 9
B 3 5 7 1 3 5 7 8 7 10 9

5 Imaj7 viimin7b5 vimin7 V7 IVmaj7 iiimin7 iimin7 Imaj7

T 8 6 5 3 1 7 5 3
A 9 7 5 4 2 8 6 5
B 9 7 5 3 2 9 7 5
8 7 5 3 1 7 5 3

Bass

T 9 10 7 7 8 5 7 5 7 3 5 5 2 3 2 3 0 7 9 5 7 5 7 3 4 5 2 3
A 9 10 7 7 8 5 7 5 7 3 5 5 2 3 2 3 0 7 9 5 7 5 7 3 4 5 2 3
B 8 8 5 7 5 5 2 3 3 0 1 7 7 5 5 2 3

CAGED Template with 7ths

In the pages that follow you can see how each chord in the key of G can be played using the CAGED forms with sevenths added. Each group of diagrams begins with an illustration of where the seventh interval is in relation to the root. In some of these examples you can fit the seventh interval somewhere other than indicated. You can experiment with other possible shapes on your own. Be sure to look up and play through some of the song references (*the songs listed throughout this chapter use pieces of the chord shapes illustrated but not always in the same position*).

Major 7th (as used in G^{MA7})

G^{MA7} (open form)

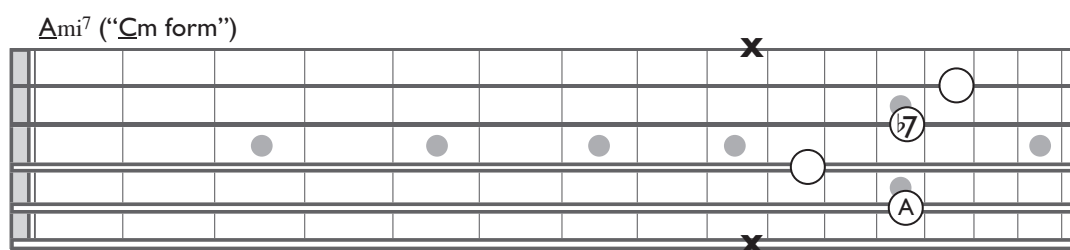
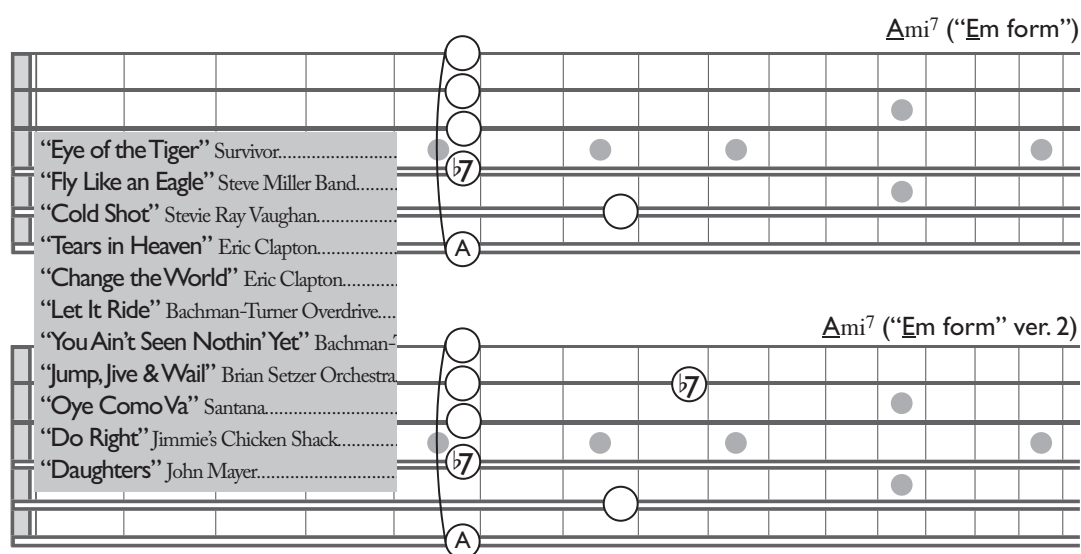
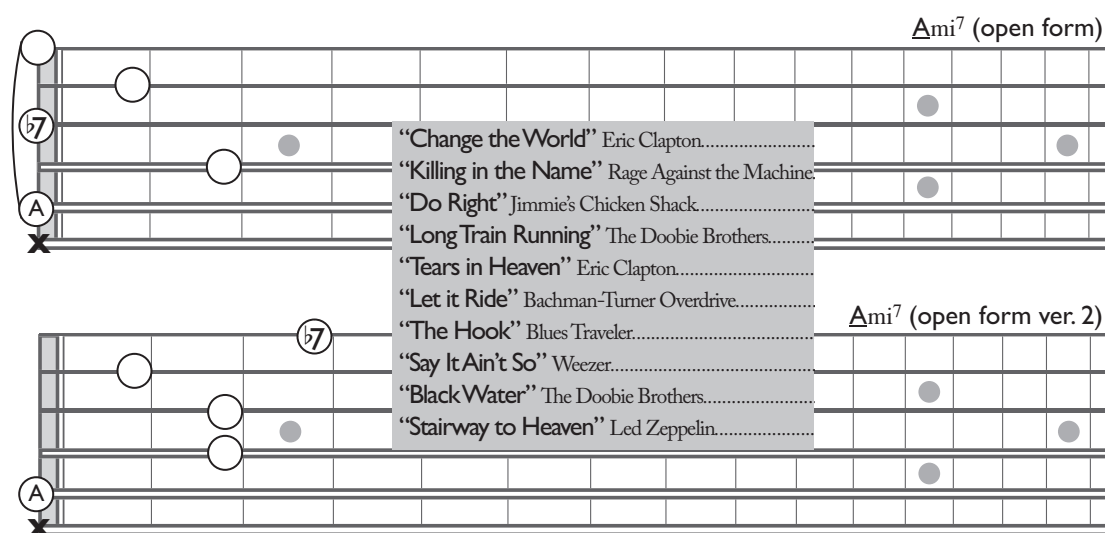
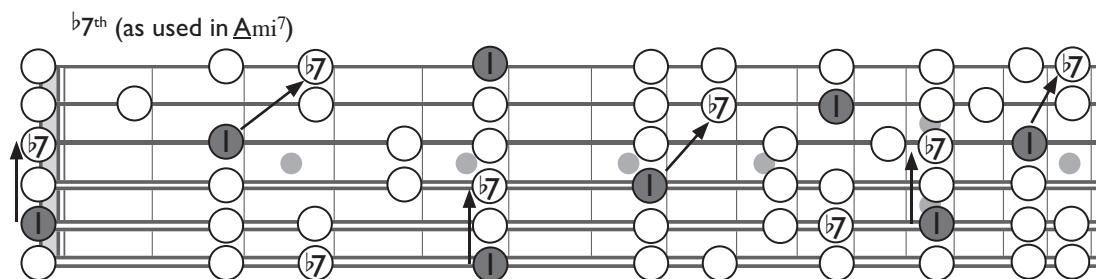
G^{MA7} ("E form")

G^{MA7} ("D form")

G^{MA7} ("C form")

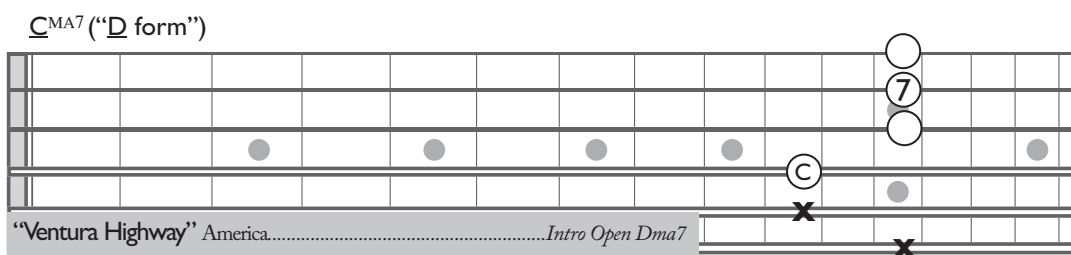
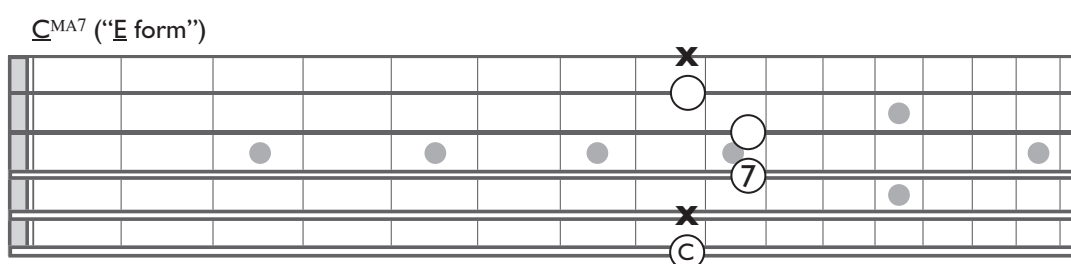
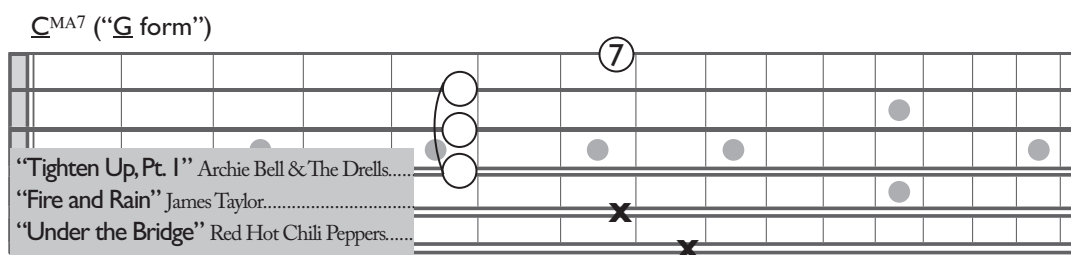
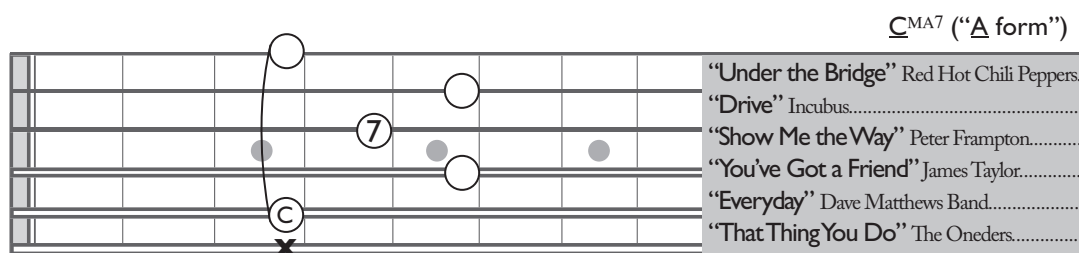
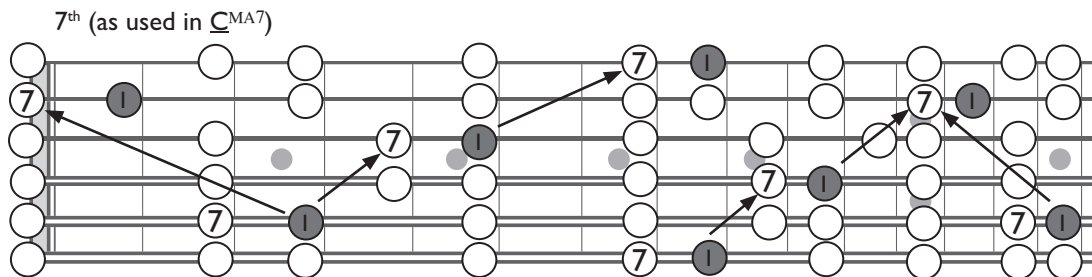
G^{MA7} ("A form")

A Minor Seven



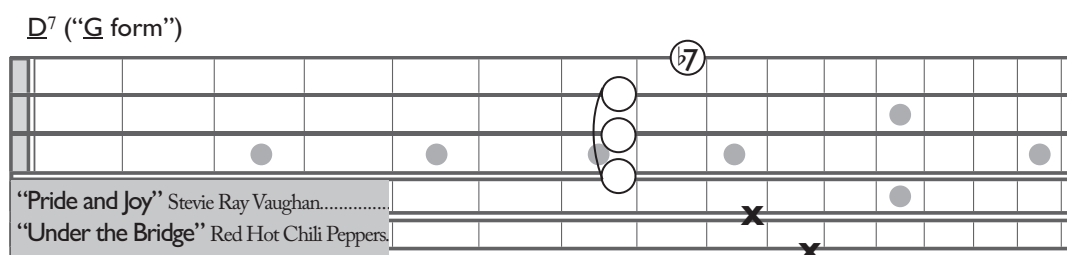
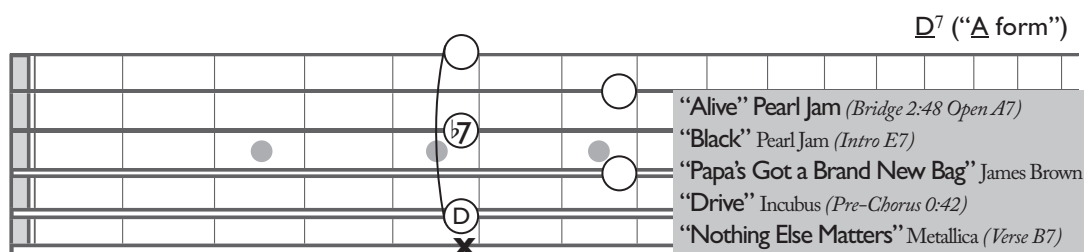
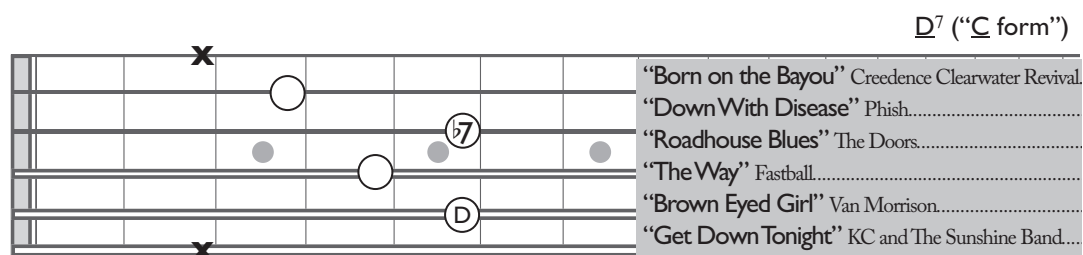
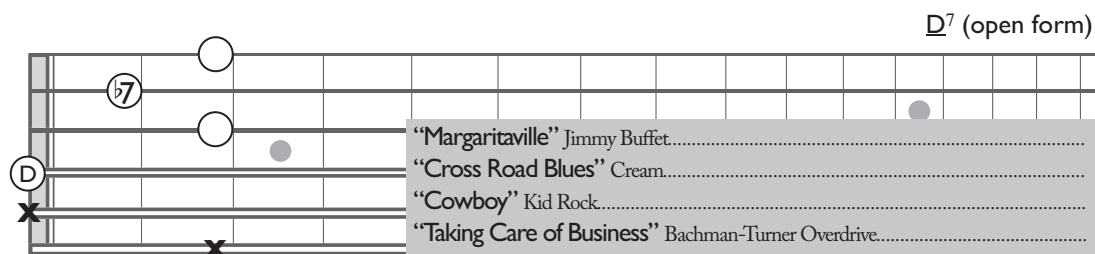
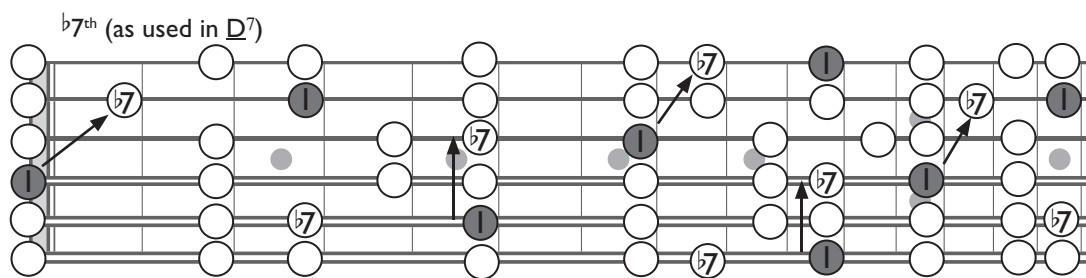
The songs listed throughout this chapter use pieces of the chord shapes illustrated but not always in the same position.

C Major Seven

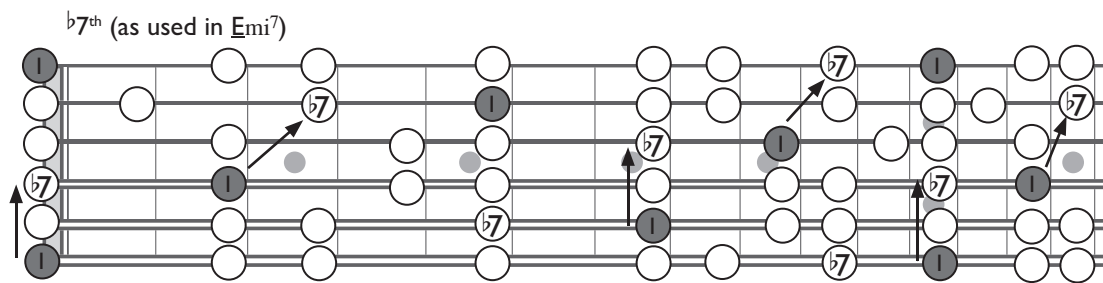


The songs listed throughout this chapter use pieces of the chord shapes illustrated but not always in the same position.

D Dominant Seven



E Minor Seven



$\text{E}m7$ ("Em form")

$\text{E}m7$ ("Em form" ver. 2)

"Wonderwall" Oasis.....
"Wish You Were Here" Pink Floyd.....
"Eye of the Tiger" Survivor.....
"Fly Like an Eagle" Steve Miller Band.....
"Cold Shot" Stevie Ray Vaughan.....
"Tears in Heaven" Eric Clapton.....
"Change the World" Eric Clapton.....
"Let It Ride" Bachman-Turner Overdrive....
"You Ain't Seen Nothin' Yet" Bachman-T....
"Jump, Jive & Wail" Brian Setzer Orchestra.....
"Oye Como Va" Santana.....
"Do Right" Jimmie's Chicken Shack.....
"Daughters" John Mayer.....

$\text{E}m7$ ("Cm form")

"Daughters" John Mayer (*Gtr. Intro/Verse Em7*)

$\text{E}m7$ ("Am form")

$\text{E}m7$ ("Am form" ver. 2)

"Change the World" Eric Clapton.....
"Killing in the Name" Rage Against the Machine.....
"Do Right" Jimmie's Chicken Shack.....
"Long Train Running" The Doobie Brothers.....
"Tears in Heaven" Eric Clapton.....
"Let it Ride" Bachman-Turner Overdrive.....
"The Hook" Blues Traveler.....
"Say It Ain't So" Weezer.....
"Black Water" The Doobie Brothers.....
"Stairway to Heaven" Led Zeppelin.....

The songs listed throughout this chapter use pieces of the chord shapes illustrated but not always in the same position.

F# Minor Seven Flat Five

F#mi7^{b5} ("E_m form")

F#mi7^{b5} ("A_m form")

"Change the World" Eric Clapton.....
 "Smooth" Santana.....
 "I Will Survive" Gloria Gaynor.....

"E Form" Barre Chord with Major 7th

An E chord played at the first fret in the open-position is actually a partial "E form" barre chord. This E is commonly played as a major seven chord by incorporating the open first string (E is the 7th or F). This is the most widely used major seven chord by guitar players attributed to the convenience of the 7th interval (the open first string) and the easy fingering. Here it is along with some good song examples.

7 F^{ma7} ("E form")

"E form" Major Seven (F)

"Space Oddity" David Bowie.....	Gtr. Intro
"Best of My Love" The Eagles.....	Gtr. Intro
"Just Remember I Love You" Firefall.....	Gtr. Verse
"What It's Like" Everlast.....	Gtr. Intro/Verse
"Band on the Run" Wings.....	Gtr. Section 3
"Stairway to Heaven" Led Zeppelin.....	Gtr. Intro & Throughout
"Dreams" Fleetwood Mac.....	Gtr. Throughout
"One" U2.....	Gtr. 2 Intro
"Californication" Red Hot Chili Peppers.....	Gtr. Verse
"Tighten Up, Pt. 1" Archie Bell & The Drells.....	Gtr. F#maj7

Adding Other Intervals

Now that you know how to build chords with sevenths using the major scale you can experiment on your own with adding other intervals to the chord pattern. The rest of this chapter will help you along the way by talking briefly about the other intervals, illustrating some common chord forms and listing more song references.

Second (a.k.a. Ninth)

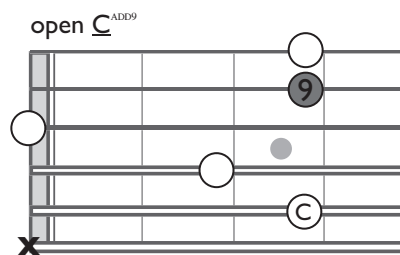
Seconds are difficult to add in the first octave because they're too close to the root. They usually need to be added in the next octave or higher. Because of this transposition, they're almost always referred to as "9ths." Both intervals, 2nds and 9ths, are the same, only separated by an octave. For example, play the notes of the G major scale, starting on the first degree G, and count until you reach the ninth note (this will take you into the next octave). Upon comparing the ninth note to the second note you'll realize that they're both A.

When you add a 9th to a major chord, for example G major, it's called G^{ADD9} (don't confuse this with a G^{MA9}, which is a G^{MA7} with a 9th added). Occasionally you may find G^{ADD9} written as G^{ADD2} and for most intents and purposes they're both the same.

You may be wondering why other intervals aren't renamed when they're transposed up an octave. For example, the seventh interval that's most commonly added to an open G major is actually two octaves away from the root. Why not call it a 14th? Because that's the way it is, my friend. So, remember that roots, thirds, fifths and sevenths are always called such regardless of which octave they're in.

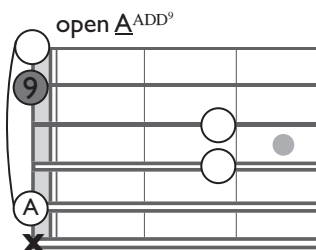
A very popular voicing on guitar is an add⁹ chord with no 3rd. This voicing is sometimes created by default, when it's impossible to add a 2nd or 9th without omitting the 3rd. Without the 3rd, the chord is really just a power chord with a 9th added. This should technically be called something different but more often than not it's still written as G^{ADD9} (or whatever the chord may be). Other possible names are G^{5ADD9} or G^{5ADD2} (a power chord with a 9th added), G^{sus9} or G^{sus2} (meaning that the 3rd interval is "suspended" or left out), and G^{susADD9} or G^{susADD2}. Why can't we all agree on one name?

Try adding 9ths to the entire major scale pattern on your own. When you do this you'll discover that some chords have a flat 9th interval. The flat 9th isn't used much but it's still interesting to see how it comes from the scale. In the upcoming diagrams you can see the most common shapes that result from adding a 9th interval to the CAGED shapes. Don't forget to try moving shapes around the fretboard.

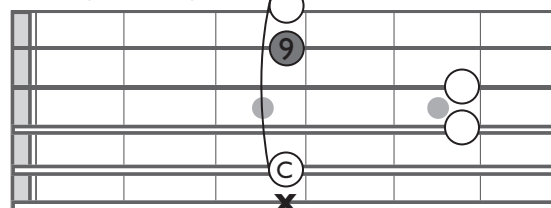


"C Form" Add 9

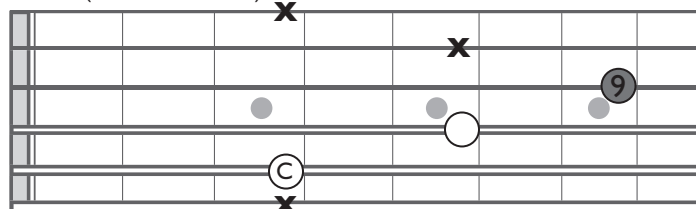
"Closer to Fine" Indigo Girls.....	
"Talking About a Revolution" Tracy Chapman.....	
"Old Apartment" Barenaked Ladies.....	
"If I Had \$1,000,000" Barenaked Ladies.....	
"Good Riddance (Time of Your Life)" Greenday.....	
"Sweet Home Alabama" Lynyrd Skynyrd.....	
"Wonderwall" Oasis.....	
"Semi-Charmed Life" Third Eye Blind.....	
"There She Goes" Sixpence None the Richer.....	
"Breath" Faith Hill.....	
"Hands Clean" Alanis Morissette.....	
"Signs" Tesla.....	
"You and Me" Lifehouse.....	
"Cover Me" Candlebox.....	
"Hero" Enrique Iglesias.....	



C^{ADD9} ("A form")

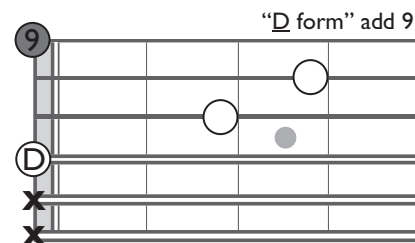


C^{ADD9} ("A form" ver. 2)



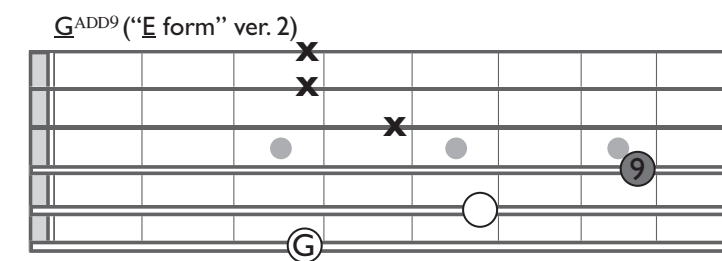
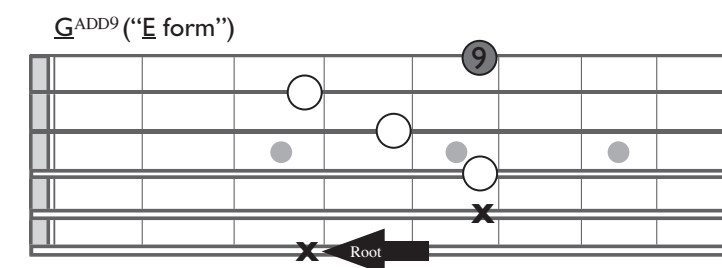
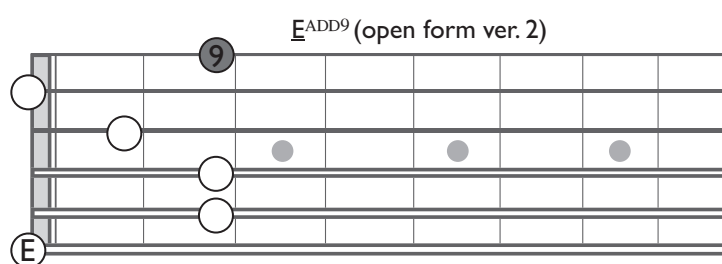
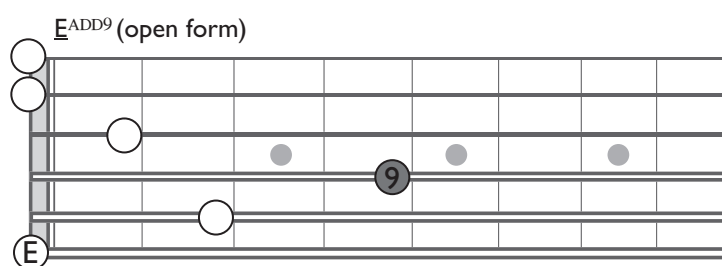
“A Form” Add 9

“Take a Picture” Filter.....
“Summer of ‘69” Bryan Adams.....
“Ana’s Song (Open Fire)” Silverchair.....
“Backwater” Meat Puppets.....
“What I Am” Edie Brickell & The New Bohemians.....
“Every Breath You Take” The Police.....
“Message in a Bottle” The Police.....
“Fire and Rain” James Taylor.....
“Machine Head” Bush.....



“D Form” Add 9

“Can’t You See” Marshall Tucker Band.....
“Summer of ‘69” Bryan Adams.....
“Closer to Fine” Indigo Girls.....
“Fire and Rain” James Taylor.....
“Stairway to Heaven” Led Zeppelin.....
“The Freshmen” Verve Pipe.....

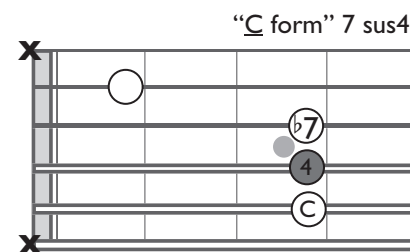
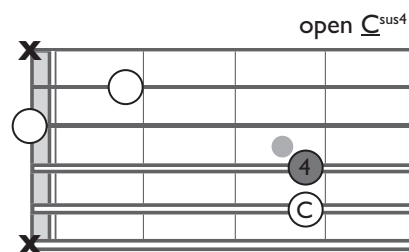


“E Form” Add 9

“Castles Made of Sand” Jimi Hendrix.....
“Little Wing” Jimi Hendrix.....
“Every Breath You Take” The Police.....
“Everyday” Dave Matthews Band.....
“Ana’s Song (Open Fire)” Silverchair.....
“Message in a Bottle” The Police.....
“Yellow Ledbetter” Pearl Jam.....
“Jack and Diane” John Mellencamp.....

Fourth (a.k.a. Suspended Fourth)

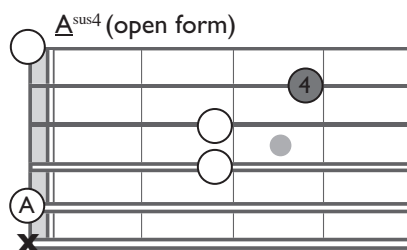
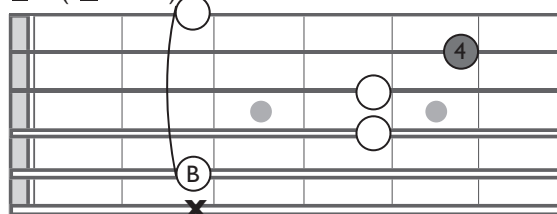
Fourth intervals are usually only added to major chords. They almost always take the place of, or “suspend,” the 3rd hence the term. In the event that the 4th doesn’t interfere with the 3rd and it remains in the chord, you may see it as “add4.” The 4th interval is occasionally added to dominant seventh chords but not usually to major seventh chords. Finally, the IV chord has a sharp fourth interval which creates an interesting sound but is rarely used.



“C Form” 7 suspended 4

“Get Down Tonight” KC and The Sunshine Band.....
--

Gtr. Throughout

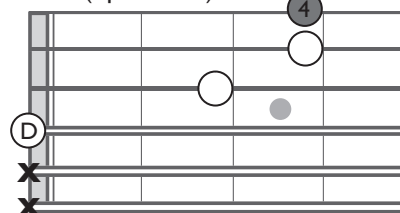
B^{sus4} ("A form")

"A Form" Suspended 4

"Eye of the Tiger" Survivor.....
 "Summer of '69" Bryan Adam.....
 "What I Like About You" The Romantics.....
 "Tears in Heaven" Eric Clapton.....

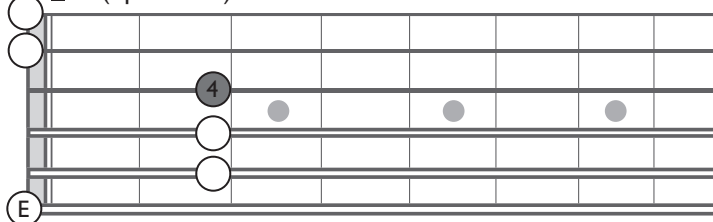
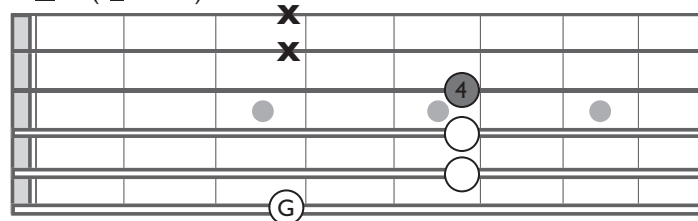
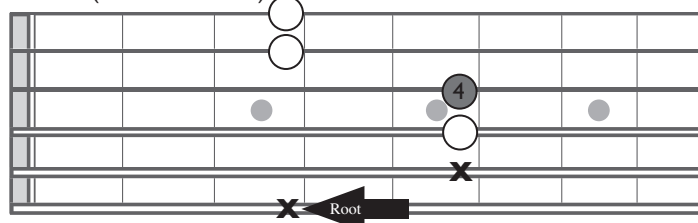
"E Form" Suspended 4

"Yellow Ledbetter" Pearl Jam.....
 "Brass In Pocket" The Pretenders.....
 "Little Wing" Jimi Hendrix.....
 "Dig In" Lenny Kravitz.....
 "All Shook Up" Elvis Presley.....
 "Under the Bridge" Red Hot Chili Peppers.....
 "Heaven" Los Lonely Boys.....

D^{sus4} (open form)

"D Form" Suspended 4

"Can't You See" Marshall Tucker Band.....
 "Take a Picture" Filter.....
 "Signs" Tesla.....
 "Tomorrow" Silverchair.....
 "Summer of '69" Bryan Adam.....
 "Stairway to Heaven" Led Zeppelin.....
 "Closer to Fine" Indigo Girls.....
 "Jack and Diane" John Mellencamp.....
 "Margaritaville" Jimmy Buffet.....

E^{sus4} (open form)G^{sus4} ("E form")G^{sus4} ("E form" ver. 2)

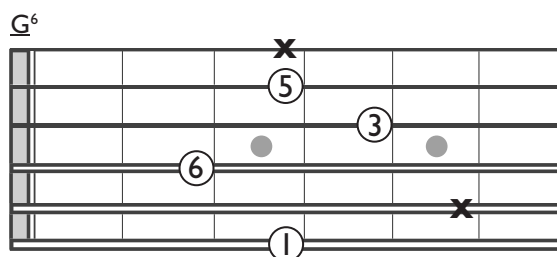
Remember, when playing partial chord shapes you can visualize the root of the parent form even if it's omitted.

Other Extensions

You're starting to get the point and should be able to build chords with extensions on your own. Below is a chart that details the scale degrees used for some different chord types. Following the chart are a few final examples and song references.

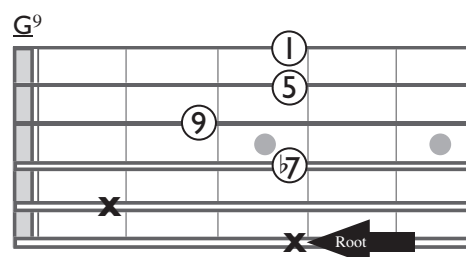
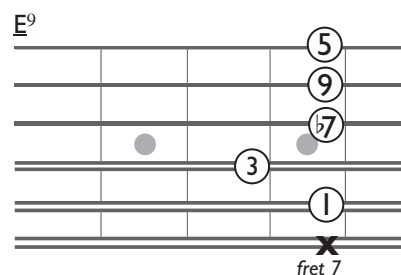
Chord Building Chart

Chord Quality & Intervals Used	Occurs in Major Scale
Major = 1-3-5.....	(I, IV, V)
Minor = 1-3-5.....	(ii, iii, vi)
Minor Flat Five (or Half Diminished) = 1-3-5-7.....	(vii)
Major Suspended Four = 1-4-5.....	(I, V)
Seven Suspended Four = 1-4-5-7.....	(V)
Major Six = 1-3-5-6.....	(I, IV, V)
Minor Six = 1-3-5-6.....	(ii)
Major Seven = 1-3-5-7.....	(I, IV)
Minor Seven = 1-3-5-7.....	(ii, iii, vi)
Dominant Seven (or simply Seven) = 1-3-5-7.....	(V)
Minor Seven Flat Five (or Half Diminished Seven) = 1-3-5-7.....	(vii)
(Major) Add Nine = 1-3-5-9.....	(I, IV, V)
(Minor) Add Nine = 1-3-5-9.....	(ii, vi)
Major Nine = 1-3-5-7-9.....	(I, IV)
Minor Nine = 1-3-5-7-9.....	(ii, vi)
Ninth = 1-3-5-7-9.....	(V)



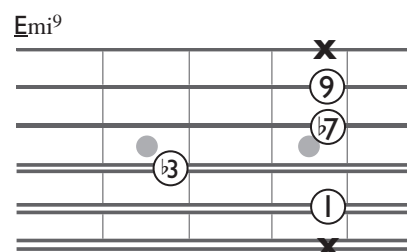
6

"Lie in Our Graves" Dave Matthews Band.....
 "Lenny" Stevie Ray Vaughan & Double Trouble.....



9

"Play That Funky Music" Wild Cherry.....
 "Come On (Part II)" Jimi Hendrix.....
 "Wall of Denial" Stevie Ray Vaughan.....
 "Tore Down" Eric Clapton.....
 "Jeff's Boogie" Jeff Beck.....
 "Jump, Jive & Wail" Brian Setzer Orchestra.....
 "Oye Como Va" Santana.....
 "Santeria" Sublime.....
 "Cult of Personality" Living Colour.....



Minor 9

"Drive" Incubus.....

Jazzy Songs

If you want to explore music that features a lot of major, minor and dominant seven chords, plus other chord extensions, then listen for music that has a jazzy flavour to it. Below is a list of popular songs by well-known artists that are good examples.

Songs with Lots of 7s

"Moondance"	Van Morrison.....
"Change the World"	Eric Clapton.....
"Jump, Jive and Wail"	The Brian Setzer Orchestra.....
"Stormy Monday"	The Allman Brothers Band.....
"Let's Stay Together"	Al Green.....
"Ooh Baby Baby"	Linda Ronstadt.....
"Don't Know Why"	Nora Jones.....
"It's Too Late"	Carole King.....
"You've Got a Friend"	James Taylor.....

Jazz Standards

Another option that will surely provide an opportunity for you to put the chords from this chapter to good use is to play straight up jazz songs. Old standards like "Misty," "Satin Doll," and "Summertime" are good examples. Just be careful because jazz can get pretty complex and include musical elements that go way beyond the scope of this book. If you decide to go this route, focus on easy material that's geared toward jazz newcomers.

Conclusion

Now you know how the major scale can be used to add extensions to simple chords. You can create chords with more depth and color. The song examples in this section will help you put these new chords to good use right away (remember that the songs listed throughout this chapter use pieces of the chord shapes illustrated but not always in the same position). And finally, aren't you glad to know what all those numbers written next to chords mean?

Talk to Me

Have any questions or comments about this chapter? Are there other song references that you think make good examples? I want to hear from you! Contact me through my web site: <http://Guitar-Music-Theory.com>

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Chapter II

Conclusion

Congratulations!

You've made it all the way through *Fretboard Theory*. Hopefully you completed all the lesson plans and worked out lots of songs along the way. If you did, I know that you've learned a ton and your playing will benefit for years to come as a result of your work. Read on for an overview of the most important things to remember.

Visualize

Visualize, visualize, visualize! Remember to look at the fretboard as a grid. Instead of emphasizing the notes of the scales and the chords that you play, visualize their patterns and shapes and how they connect.

Pentatonic Scale

Keep in mind that the pentatonic scale is one of the most widely used scales in popular music especially among guitar players. Don't forget that the pentatonic patterns can be either major or minor. The first note in pattern one is always the minor root and the second note in pattern one is always the major root. Additionally, you can add chromatic passing tones to the scale and create the so-called "blues scale." Lastly, blues and blues-based rock music breaks the rules sometimes in that the minor pentatonic is played over major-based chords.

CAGED

Don't forget that the CAGED template turns all of the common open chords into arpeggio patterns that can be used to build chords anywhere on the fretboard. Each form connects to the next creating one giant chord shape that can be broken up and played in any way your fingers can grab the notes. Any note from a chord can be placed in the bass position and you can combine notes on non-adjacent strings.

Five Is the Magic Number

Remember that the five pentatonic scale patterns and the five CAGED forms interlock creating a template where the scales, arpeggios and chords are available for instant access and application. Don't forget that the whole template can work for both major and minor chords.

Major Scale

Everything in music is derived from the major scale or thought of in relation to it. It's used to compose melodies, riffs, solos, and bass lines along with being used to build chords, add extensions, measure intervals, and chart chord progressions. Any note in a major scale can function as the root creating different modes each with its own unique sound characteristics.

Songs

Most importantly, the hundreds of song references in this book will demonstrate exactly how to immediately put all this information to good use. Songs are the reason we learn all this technical stuff. They're the reason we're drawn to music and want to play instruments. Without the songs all you're left with is a pile of meaningless notes.

Where to Go from Here

The more that you work with *Fretboard Theory*, the more you'll grow as a player. Keep reviewing the information in this book, and work through the song examples listed in each section until everything sinks in and you can easily transcribe, improvise and compose with the concepts you've learned.

To further enhance your abilities and develop a deeper understanding of the workings of music, consider studying pitch and time relationships. This can be accomplished by learning how to read standard musical notation. A traditional music theory class can provide you with further insight. Always seek out new study materials, practice a lot, learn many songs, jam with friends, form a band, book gigs and play, play, play until your fingers bleed!

Contact Me

The conclusion of each chapter includes a request that you send comments, questions or song recommendations. Please do so! Positive or negative, I really want to hear your feedback. Contact me through my web site: <http://Guitar-Music-Theory.com>

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If you're not already receiving messages from me about your purchase, then join the *Fretboard Theory* customer mailing list to receive online bonuses, updates and special announcements. Plus, have a direct line to me for personal email support. To subscribe simply send a blank email to desi-155856@autocontactor.com and then wait for a follow up message to confirm your subscription (be sure to check your junk/spam folder for this reply).

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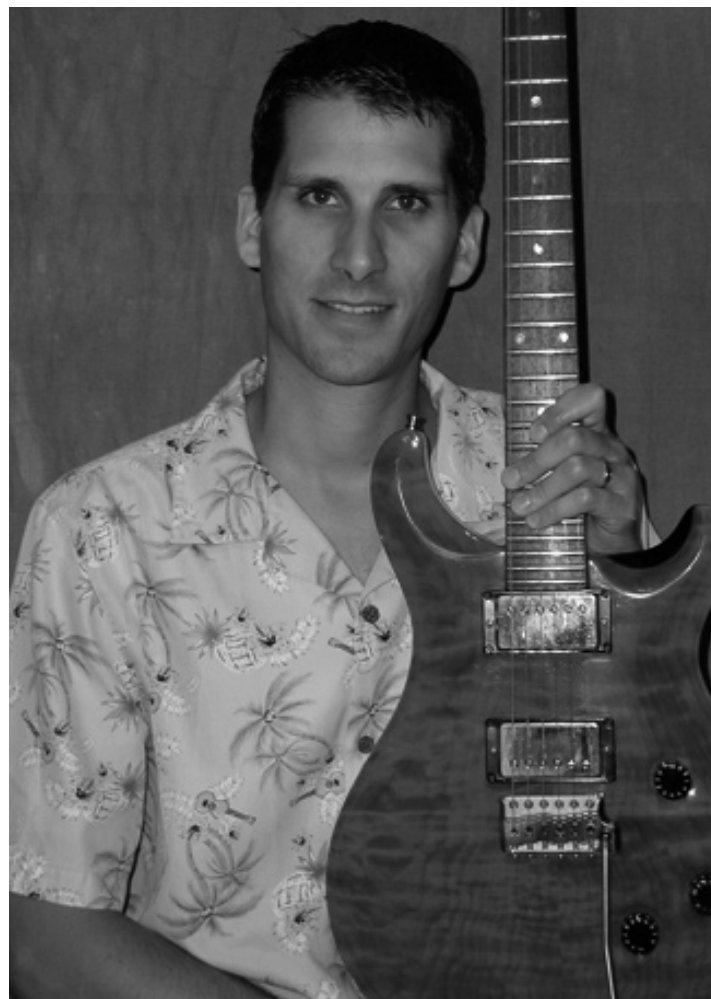
I've poured my heart and soul into the completion of this book. When I first started this project I was determined to go the extra mile and give guitar players a method and resource unlike anything else available. It has taken a decade of serving students' needs to perfect this unique approach. I've spent hours, days, weeks, months and years with my nose in a tab book and my ear pressed against a stereo to figure out and find the song examples that will be of most benefit to you.

I'm not a big corporation. I'm merely an independent, self-employed guitar player who needs your help in promoting my work. Please tell a friend about *Fretboard Theory*. If you have an Amazon.com account, then you can write a book review online (just search *Fretboard Theory* Desi Serna). If you have your own web site or blog, then you can post a link to <http://Guitar-Music-Theory.com> along with some details about the book. Also, consider joining an online guitar theory discussion group or becoming a member of a guitar theory forum and sharing your experience with others. Real testimony from actual customers is the best promotion I can get!

Fretboard Theory DVDs

Don't forget that select chapters of *Fretboard Theory* are available on DVD. Visit <http://Guitar-Music-Theory.com> for more details and free previews. Be sure to check back often for new materials and product updates.

Play Until Yer Fingers Bleed!
Mr. Desi Serna



About the Author

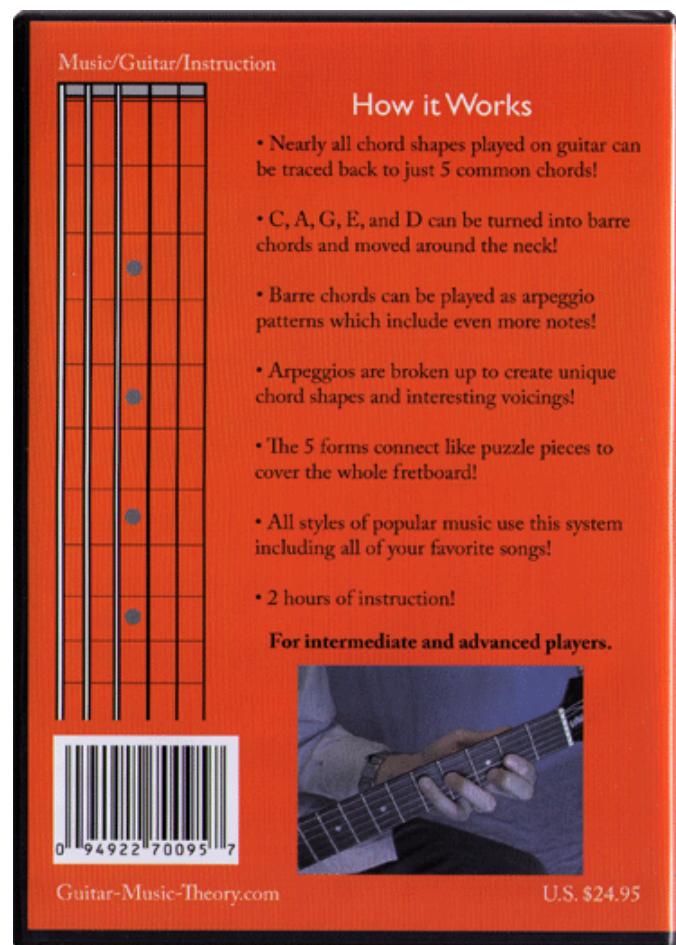
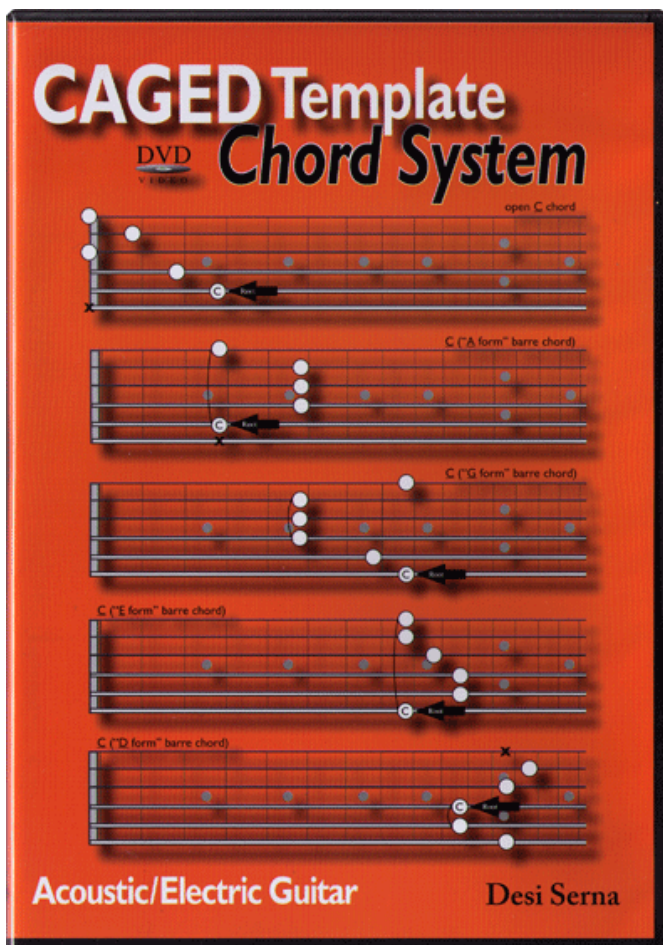
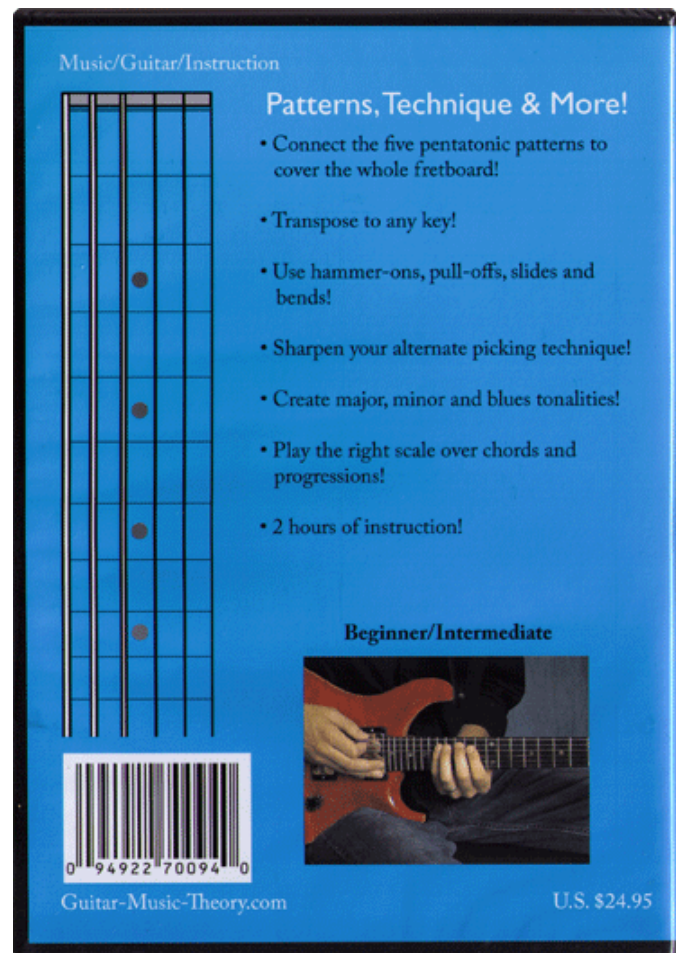
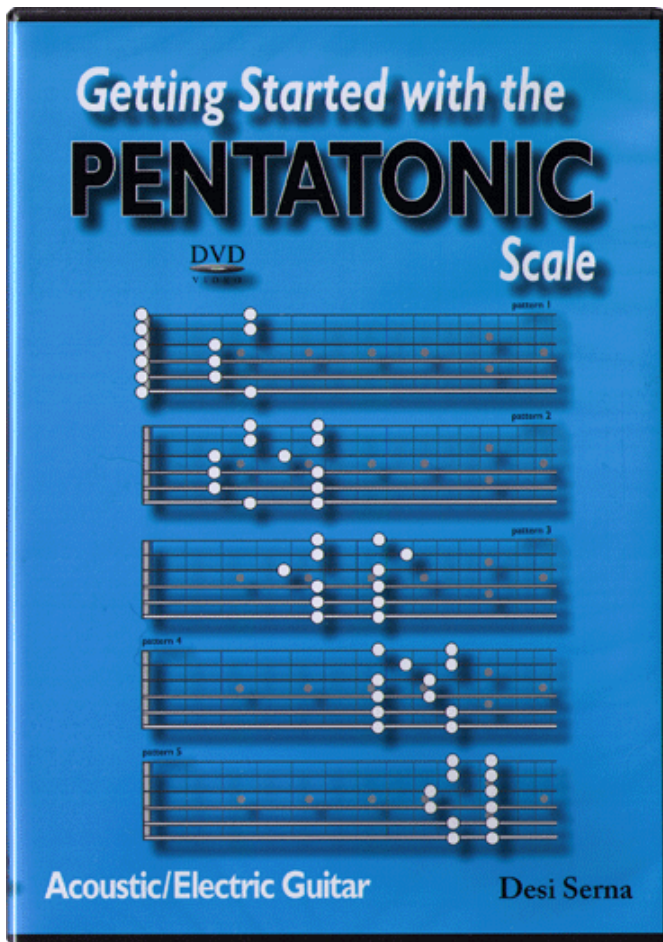
Desi Serna was born and raised in Toledo, Ohio, where he currently lives with his wife and daughter. He developed his guitar and teaching mastery through years of traveling, performing, recording and lecturing across Northwest Ohio and Southeast Michigan. Today, he utilizes his experience and skills to publish his own instructional materials, operate his own guitar theory web site, and contribute to online sources for lessons. His work has been lauded in *The Toledo Blade*, *Acoustic Guitar Magazine* and *Rolling Stone*. He also proudly serves in the praise band at Westgate Chapel in Toledo.

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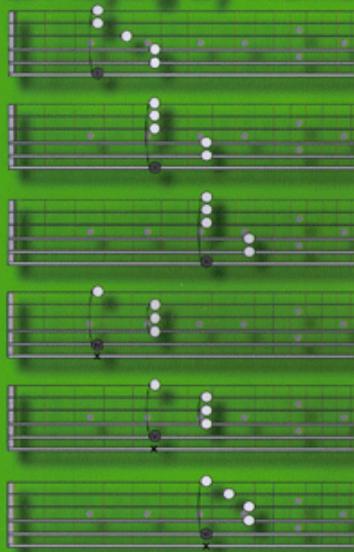
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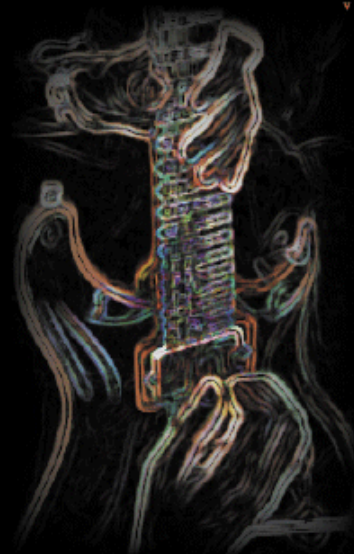
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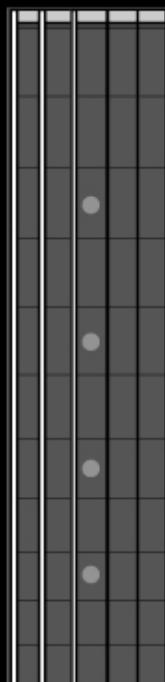
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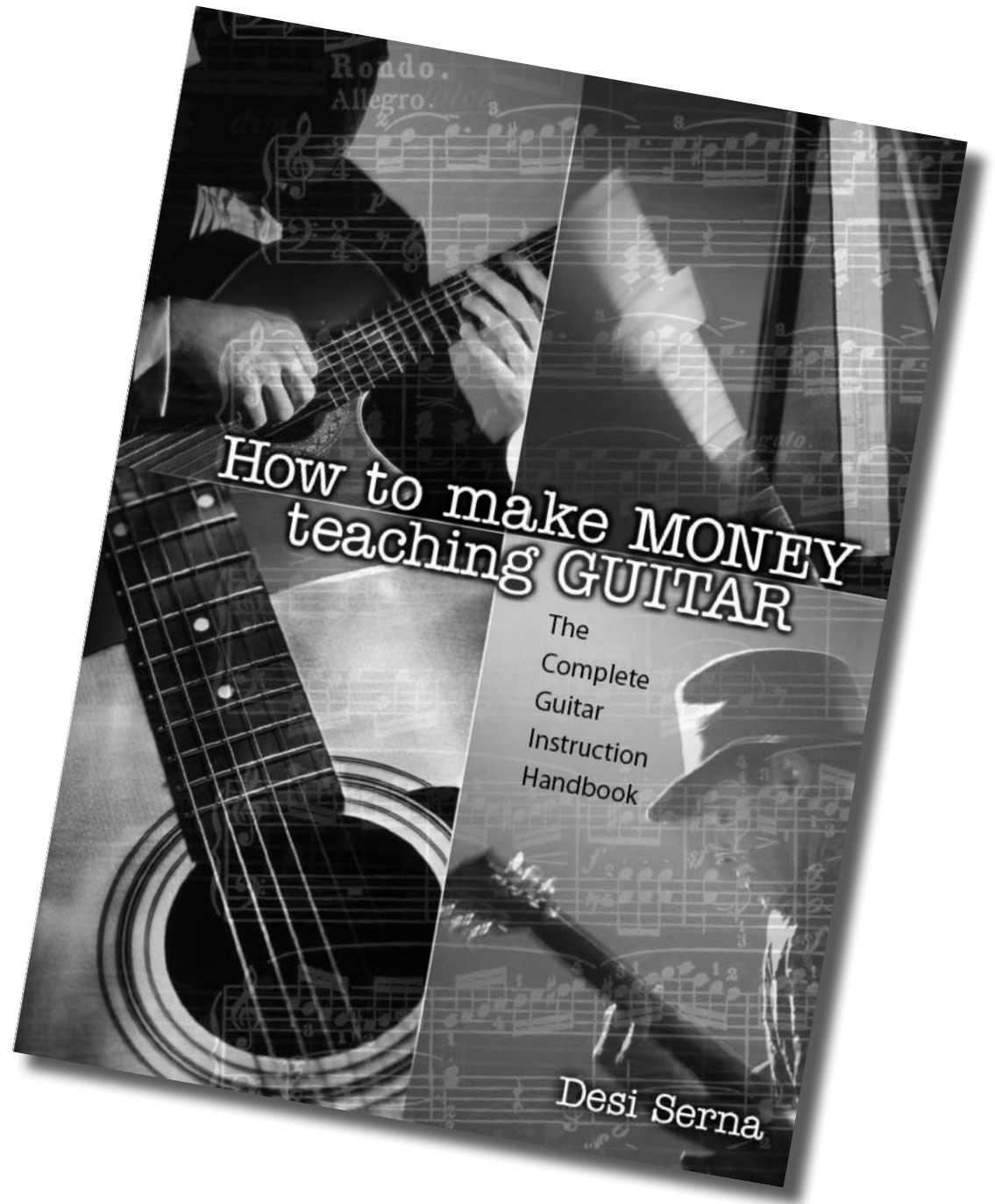
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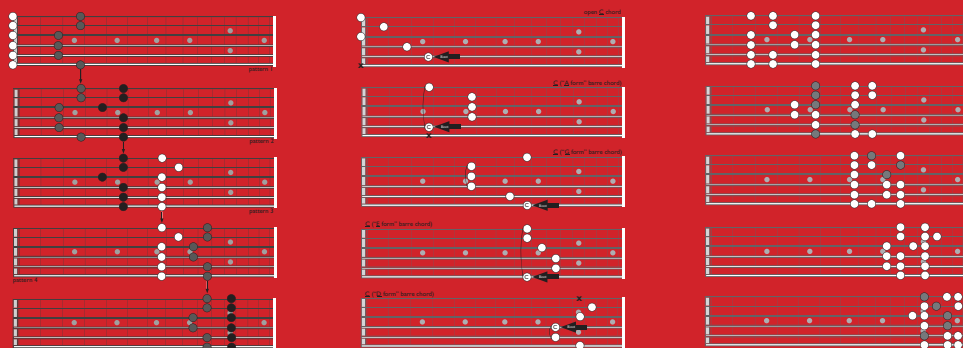
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- Harmonize with intervals and add extensions to chords!
- Enhance your ability to transcribe recorded music!
- Compose, improvise and create your own style!

How Is This Method Different from the Rest?

Too many guitar methods borrow from the teachings of other instruments, such as the piano, and place emphasis on notes and notation. Guitar players benefit by visualizing shapes and patterns and how they connect on the fretboard. Visualization is the key to guitar playing and the emphasis of *Fretboard Theory*.

Guitar players also need to work with familiar songs in order to apply their newfound knowledge and remember it. That's why each lesson in *Fretboard Theory* includes a song list outlining which popular tunes best demonstrate each concept. There are hundreds of song references throughout this book. No more learning something new without knowing how to apply it to your favorite songs. Get started today!



PLEASE NOTE: For intermediate and advanced level players.

